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EXPERIMENTAL MEASLES IN THE MONKEY: A SUPPLEMENTAL NOTE.

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[From the Hygienic Laboratory, Washington, D. C.]

In a preliminary note¹ we briefly summarized some attempts at inoculating the rhesus monkey with blood from human cases of measles and reported some results that, we believe, demonstrate that the rhesus monkey is capable of being infected, and that when so infected may show a definite febrile reaction, resembling the course of the temperature in some types of measles in the human subject, with or without a generalized exanthem.

At this time we wish to present our work in somewhat greater detail.

Experiment 1.—Our first inoculations were made June 8, 1910. The case that furnished us with the blood for this purpose was a patient (L. F.) at the Willard Parker Hospital, New York City. The eruption in this case was reported to have appeared in the morning of June 7, 1910. Ten cubic centimeters of blood were drawn from a vein at the elbow at 1.30 p. m., June 8. It was taken to the laboratory in Washington, where, on arrival, it was found to have partly clotted, having been imperfectly defibrinated. To this blood 10 c. c. salt solution was added and the clot broken up, after which 13 c. c. of diluted blood was aspirated into a conical glass. To the remaining blood 7 c. c. more of saline solution was added and the clot further broken up, and this aspirated into a second conical glass.

At 9.30 p. m., eight hours after drawing the blood, we inoculated two rhesus monkeys; one (No. 1) received 10 c. c. intraperitoneally of the first dilution, the other (No. 2) 10 c. c. intraperitoneally of a mixture of the first and second dilutions.

A glucose-broth fermentation tube was inoculated with about 0.5 c. c. of the undiluted blood. At the end of 5 days this culture was clear, giving no visible evidence of growth.

The result of this experiment we considered negative, although in both animals there was noted a slight, but insignificant, rise in temperature on June 19, 1910, eleven days after inoculation.

An opportunity to continue our experiments did not present itself until April 25, 1911.

¹ Anderson, John F., and Goldberger, Joseph: "Experimental measles in the monkey: A preliminary note." Pub. Health Reports, vol. 26, No. 23, June 9, 1911, p. 847.

Experiment 2.—The blood used for inoculation in this experiment was from a patient (J. R. W.) at the Government Hospital for the Insane. In this case the eruption was reported to have appeared shortly after noon of April 24, 1911. A syringe of blood was drawn from a vein at the elbow at 5.15 p. m., April 25, 1911, at once defibrinated, and taken to the laboratory.

At 6.45 p. m., an hour and a half after drawing, it was used for the inoculation of two rhesus monkeys; one (No. 38) received 5 c. c. intraperitoneally, the other (No. 42) received 2.5 c. c. in the same way, but diluted with an equal volume of saline solution.

Two tubes of alkaline broth were planted with 0.5 c. c. each of the defibrinated blood. Both tubes were noted as clear, without visible evidence of growth, 5 days later.

Ten days after the inoculation (May 5) one of these animals (No. 42) showed a slight rise in temperature. Unfortunately, however, its temperature both before and after this date, was quite irregular, so that we can not be sure of its significance. In the case of the other monkey, however, the temperature rose slightly on May 5, 10 days after inoculation, went still higher on the sixth, then dropped abruptly during the night of May 6-7.

Experiment 3.—The blood used in this experiment was from a patient (I. S. E.) at the Government Hospital for the Insane.

This patient, a nurse, reported sick at 2 a. m., April 27, at which time the eruption was appearing.

Blood was drawn April 28, 1911, at 10 a. m., at once defibrinated, and taken to the laboratory.

At 12 noon, two hours after being drawn, it was employed for the inoculation of three rhesus monkeys (Nos. 7, 40, and 12). No. 7 received 5 c. c. diluted with an equal volume of salt solution subcutaneously; No. 40 received the same amount similarly diluted intraperitoneally; while No. 12 received 0.5 c. c. intracerebrally.

A glucose-broth fermentation tube was planted with about 0.5 c. c. of the defibrinated blood. At the end of 5 days this culture appeared clear, without visible evidence of growth.

The temperature of rhesus No. 7 shows a slight rise extending over May 9 and 10—that is, on the eleventh and twelfth days after inoculation; rhesus No. 40 showed a slight rise on May 6, or 8 days after inoculation; while rhesus No. 12 showed a slight rise on May 8, or 10 days after inoculation. In all three animals the elevation of temperature was too slight to be of significance in itself, nor were we disposed to attach any significance to it in any but No. 12. In this last animal, besides the slight rise in temperature on the tenth day after inoculation, we noted the presence of a few papules on the face, brows, and chin, with a rather marked diffuse erythema of the brows and lids. At the end of four days the eruption had perceptibly faded, while at the same time a fine, branny scaling was noted at the site of the fading papules.

Experiment 3a.—On May 8, at 9.45 p. m., at what we assumed would be early in a beginning reaction but which proved to be at a time when the temperature of monkey No. 12 had already receded from its slight rise, we aspirated some blood from the heart of this animal, defibrinated it, and at once injected 9 c. c. into the peritoneum of rhesus No. 44. This animal during a period of observation of 28 days gave no appreciable evidence of a reaction.

This result would appear to negative our interpretation of a reaction in monkey No. 12. This view, however, loses force when we recall that of seven monkeys that we had inoculated up to this time with blood from three cases of measles only one (No. 38, experiment 2) had shown, even in retrospect, any very significant rise in temperature. It is clear, therefore, that either the virus with which we had been working possessed a very low virulence or that the monkey is but slightly susceptible to measles. While we see no reason to doubt that the virus of measles may vary considerably in virulence, we believe from the evidence already deduced that the susceptibility of the monkey is very slight, and, judging from our later experience, we believe that this is the more important factor. In the light of these considerations we would interpret the result of this experiment as indicating a low degree of susceptibility in monkey No. 44 combined perhaps with the action of a virus of low virulence (as is in some degree probable from the ill-defined reactions in monkeys Nos. 7 and 40, inoculated with the same virus as No. 12) rather than that No. 12 had failed to react. The correctness of this view is made more probable by the result of the immunity test given No. 12 in our fourth experiment.

Experiment 4.—The blood used in this experiment was from a patient (J. R. W., 2d) at the Government Hospital for the Insane.

The eruption in this case (case 4) was reported to have appeared about 10 p. m. May 15, 1911.

Blood was drawn from a vein at the elbow at 12.15 p. m. May 16, 1911, at once defibrinated and brought to the laboratory.

At 3 p. m., three hours after it was withdrawn, this blood was used for the inoculation of rhesus monkeys Nos. 6 and 8. Rhesus No. 6 received 2.5 c. c. into the heart, while rhesus No. 8 received 0.5 c. c. into the brain and 3 c. c. into the peritoneum. At the same time we reinoculated No. 12, the monkey that in experiment 3 had given evidence of a suspicious eruption, with a view to testing his immunity and so obtaining light on the nature of his reaction.

A test of the sterility of the blood was made; as in the previous experiments a glucose-broth fermentation tube was planted with about 0.5 c. c. At the end of 5 days this culture gave no visible evidence of any growth.

The temperature curves of monkeys Nos. 6 and 8 are shown as figures 2 and 5, respectively.

In the case of rhesus No. 6 (fig. 2) there is clearly evident a sharp rise in temperature beginning May 25, nine days after inoculation. Whether this is the initial rise, or whether the slight elevation on May 22, three days preceding it, is to be regarded as such, we are unable to say, though we are inclined to believe that the latter is the case.

On May 26, 10 days after inoculation, a few irregular, scaly, coppery-tinted patches made their appearance on the chest and abdomen and it was noted that the animal had a dry, barking cough. Late in the afternoon he was bled and, unfortunately, as a result of the cardiac puncture, the animal bled to death.

By consulting figure 5 it will be seen that monkey No. 8 developed a well-marked febrile reaction 10 days after inoculation. In this case, also, we can not be sure that the rise on May 22 was not the initiation of the reaction. It seems to us almost certain that if this was not the case the rise on May 24 marks the beginning of the

reaction, for blood drawn from the heart of this animal on May 25, when its temperature was between 40.2° and 39.8° , was, as will be shown, infective by passage to another monkey. Assuming what seems to us, at least, not improbable, that the initiation of the reaction was marked by the rise on May 22, we have a fever that reached its fastigium four days later, at which time there was also noticed the first appearance of an eruption. Having reached its fastigium the temperature oscillated between 40.6° and 40.9° for three days, then dropped abruptly during the night from 40.8° to 39° .

The duration of the reaction as shown by the thermometer was therefore seven days.

Ten days after inoculation some three or four coppery papules about 3 to 4 mm. in diameter appeared on the scalp, one under the left side of the jaw, and some three patches on the abdomen. Of the latter one was about 1 cm. in diameter, not raised and slightly scaly; the other two, of which one was papular, were smaller. Within two days the eruption had extended to the limbs and back, and the lesions, pale rose-tinted maculo-papules, had greatly increased in number. On the third day after the eruption appeared, the lesions on the scalp and face were perceptibly less bright (fading), though the eruption on the abdomen appeared more abundant.

From this time on the eruption faded progressively, until on the sixth day after its appearance there were left only barely perceptible stained patches. Scaling was observed only on some of the stained areas left by the lesions on the scalp and temple.

In contrast to the beginning reaction noted in monkey No. 6 (fig. 2) and to the marked and striking reaction in monkey No. 8 (fig. 5) we have to record the absence of any evidence of reaction in monkey No. 12.

It will be recalled that this animal was first inoculated April 28 (experiment 3) and had given evidence of what we are inclined to interpret as a very mild reaction 10 days later. Although the result of an attempt at passage (experiment 3a) from this animal to No. 44 was apparently negative, the absence of any evidence of a reaction following reinoculation with blood that induced a well-marked reaction in both of two other animals (Nos. 6 and 8) inoculated at the same time, points, in our opinion, to an immunity conferred by the first inoculation evidenced by the slight reaction on May 8, already referred to.

In order to obtain further light on the nature of the reaction observed particularly in our monkeys Nos. 6 and 8, we attempted to transmit the infection by passage from these to other monkeys.

Experiment 4a.—At 11.30 a. m., May 25, we aspirated blood from the heart of rhesus No. 8. It was at once defibrinated and used for the inoculation of monkeys Nos. 20 and 22.

Rhesus No. 20 received 0.5 c. c. of the defibrinated blood intracerebrally and 3 c. c. intraperitoneally at noon. Rhesus No. 22 received a little more than 0.25 c. c. of the defibrinated blood intracerebrally and 3 c. c. intraperitoneally. About 0.5 c. c. was planted in a glucose-broth fermentation tube. At the end of 5 days the tube gave no visible evidence of growth. The temperature curves of these animals are shown in chart 2. It will be noted that in the case of rhesus No. 20 (fig. 6) the temperature began to rise May 31, six days after inoculation; the rise continued on the following day, then dropping

from its high point was continued for three days, marked by moderate oscillations and then by oscillations of greater amplitude. On June 4 we noted a suspicious mottling of the abdomen having somewhat the appearance of a pale rose-tinted macular eruption, but very poorly defined. The day after its first appearance this eruption was less clearly appreciable and on the second day after its appearance—that is, what would be the third day of eruption—it was no longer discernible.

We are inclined to interpret this slight and poorly defined rise in temperature followed by a suspicion of an eruption as indicative of a reaction in this animal.

In the case of rhesus No. 22 (fig. 7) we have a very clearly defined reaction. As in monkey No. 20, we noted a beginning rise on May 31, six days after inoculation, although we think it probable that the initial rise was on May 30. The temperature continues its upward course for three days, reaching its fastigium on June 3, followed by an abrupt drop the next morning. On the day when the temperature reached its fastigium a few suspicious maculo-papules were observed on the abdomen and chest and at the same time some scaly, coppery, irregular confluent patches were observed on the right cheek.

The day following its appearance the coppery patches on the cheek were much faded, while the maculo-papules on the abdomen remained unchanged. Two days after the appearance of the eruption it had faded to such a degree that it could no longer be definitely distinguished.

Experiment 4b.—At 3.30 p. m., May 26, 1911, we aspirated blood from the heart of rhesus No. 6, at once defibrinated, and used it for the inoculation of monkeys Nos. 35 and 37.

Rhesus No. 35 received at 4 p. m. 2 c. c. subcutaneously and 2 c. c. intravenously. At 4.30 p. m. rhesus No. 37 received 2 c. c. of the defibrinated blood intravenously. About 0.5 c. c. of the defibrinated blood were planted in a glucose-broth fermentation tube. No visible evidence of growth was discernible at the end of 5 days' incubation at 37°.

The temperature curves of monkeys Nos. 35 and 37 are given on chart 1 (figs. 3 and 4). It may be seen that in the case of monkey No. 35 (fig. 3) the temperature began to rise, possibly on the fifth, and certainly on the sixth, day after inoculation, and continued its upward course on the following day, when it attained its fastigium. It remained high one day, then began to decline. The decline extended over a period of three days. The total duration of the fever was six or seven days, depending on what one considers the initial rise.

On the day when the decline in the fever began—that is, nine days after inoculation—there was observed a diffuse erythema about the orbits, with the appearance of small purplish-red papules on the left upper lid. There were, besides this, two or three maculo-papules on the face. On the abdomen there appeared a sparse eruption of pale coppery or rose-tinted macules. The day following their appearance the papules on the lid were gone and the periorbital erythema appeared less bright. The macules on abdomen were clearly discernible and appeared to have extended to the thighs. Three days after its appearance the eruption was much less evident and in another day or two was altogether indistinguishable.

In the case of rhesus No. 37 (fig. 4) a febrile reaction is clearly evident, lasting seven days. The initial rise took place five days after inoculation. The temperature dropped the following day, but rose again, reaching its highest point seven days after inoculation. Six days after the initial rise the temperature dropped rapidly, falling within 24 hours to a point slightly below its normal level. An eruption could not be detected in this animal.

Summarizing the results of experiments 4, 4a, and 4b, we have, first, a clearly defined temperature reaction in both of two animals (Nos. 6 and 8), with the appearance of a generalized maculo-papular eruption in one of them, following inoculation with defibrinated blood from case 4, which in culture appeared to be sterile; second, a well-developed temperature reaction in at least three (Nos. 22, 35, and 37) of four monkeys, with the appearance of sparse eruptions in two of these as well as in the fourth (No. 20), in which the temperature reaction was not clearly defined, following inoculation with defibrinated blood from the first pair of animals (Nos. 6 and 8), that was also apparently sterile in culture.

The only reasonable interpretation of this series of events is that monkeys Nos. 6 and 8 were infected with measles from a human case and that the infection was transmitted by passage from these to four other monkeys (Nos. 20, 22, 35, and 37). We may add in this connection that we have succeeded in propagating the infection by a second passage from rhesus No. 35 to rhesus No. 81 through three monkey generations. We reserve the details of this, however, for a later report.

SUMMARY.

We have inoculated nine rhesus monkeys with defibrinated blood from four cases of measles.

The blood was drawn from the general circulation in case 1 (experiment 1) at the end of not less than 30 hours, in case 2 (experiment 2) at the end of not less than 24 to 28 hours, in case 3 (experiment 3) at the end of not less than 32 hours, and in case 4 (experiment 4) at the end of not less than 14 hours after the appearance of the eruption.

In this connection it may be well to recall that Hektoen (1905) has shown by inoculations in man that the virus is present at least during the first 30 hours of the eruption.

In broth culture the blood in all four cases appeared to be sterile.

The inoculations were intraperitoneal in experiments 1 and 2; subcutaneous, intraperitoneal, and intracerebral in experiment 3; and intracardiac and combined intracerebral and intraperitoneal in experiment 4.

Of the nine animals inoculated with human blood, only four (Nos. 38, 12, 6, and 8) gave any very significant evidence of a reaction.

Varying quantities of blood were used in the inoculations with human measles blood. The two clearly marked reactions followed the injection of 2.5 c. c. in one animal (No. 6) and 3.5 c. c. in the other (No. 8).

We have made passage inoculations in five rhesus monkeys with defibrinated blood from monkeys that had given evidence of a reaction following an inoculation with measles blood.

The blood in all three instances was drawn direct from the heart, and without exception appeared to be sterile in broth culture at 37°.

The passage inoculations were intraperitoneal (rhesus No. 44) in experiment 3*a*, combined intracerebral and intraperitoneal (rhesus Nos. 20 and 22) in experiment 4*a*, and intravenous (rhesus No. 35) and combined subcutaneous and intravenous (rhesus No. 37) in experiment 4*b*.

Of the five animals inoculated by passage, one (No. 44) gave apparently no reaction, one (No. 22) gave an ill-defined reaction, and three (Nos. 20, 35, and 37) gave well-marked reactions.

The inoculations in the animals that gave well-marked reactions were with blood varying in amount from 2.25 to 4 c. c.

Of two animals (Nos. 20 and 22) receiving nearly equal amounts of the same blood by the same method of inoculation, the one (No. 22) receiving the slightly smaller amount gave the better, more clearly defined reaction. On the other hand, in the case of two other animals (Nos. 35 and 37) the one receiving the larger amount of blood (No. 35) exhibited the sharper reaction.

In the five animals (Nos. 6, 8, 22, 35, and 37) in which the reaction is clearly defined the period of incubation—that is, the time elapsing between inoculation and beginning reaction—was six days in two (Nos. 6 and 8) and five days in three (Nos. 22, 35, and 37).

This period probably varies considerably, for in another experiment (second passage or third monkey generation, rhesus 35 to rhesus 81), the details of which we reserve for a later report, the interval was seven days.

CONCLUSIONS.

The rhesus monkey is capable of being inoculated with measles with blood from a human case.

This susceptibility appears at best not to be very great and is subject to considerable individual variation.

The virus of measles gives no visible growth in standard glucose broth in a fermentation tube.

We again wish to express our thanks to Dr. William A. White, superintendent of the Government Hospital for the Insane, and his associates, to Dr. J. D. Morgan and to Dr. Robert J. Wilson for access to cases of measles.

CHART 1.

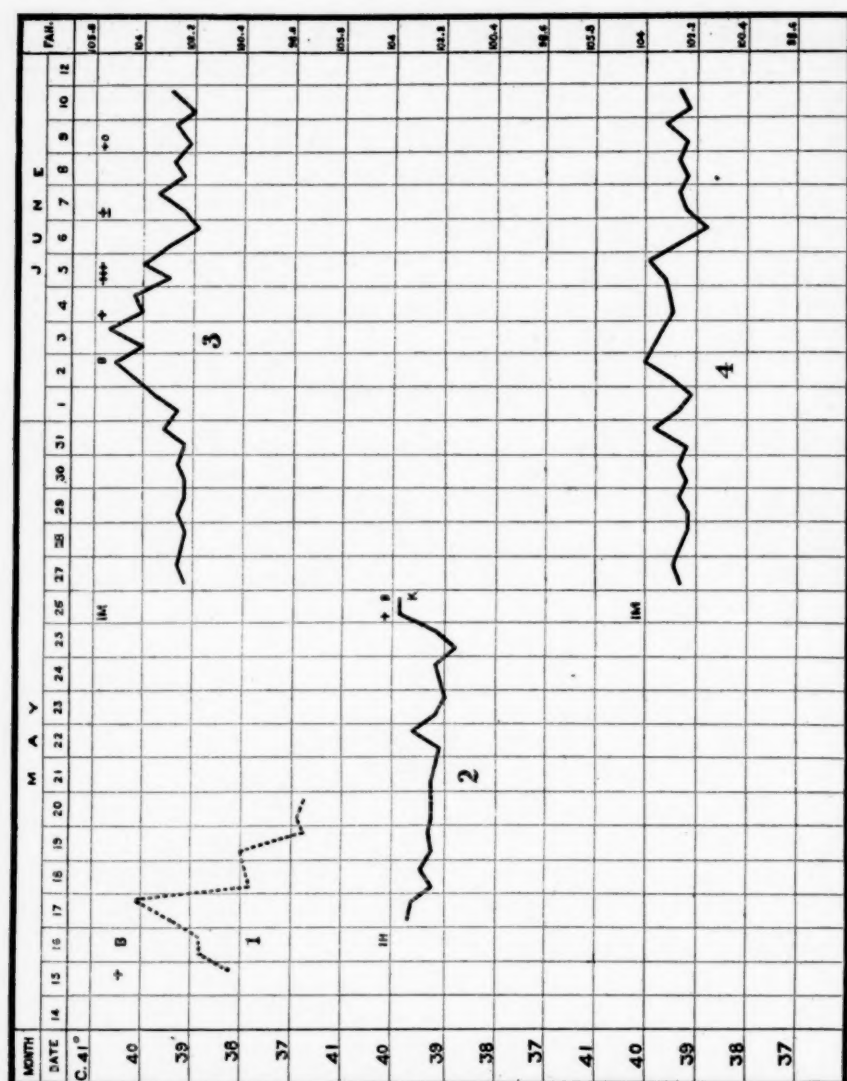


FIG. 1. Temperature curve of case 4, the source of the virus used for inoculation of rhesus Nos. 6 and 8 (figs. 2 and 5).

2. Temperature curve of rhesus No. 6, inoculated with 2.5 c. c. defibrinated blood of case 4 (fig. 1) into heart.

3. Temperature curve of rhesus No. 35, inoculated with defibrinated blood of rhesus No. 6.

4. Temperature curve of rhesus No. 37, inoculated with defibrinated blood of rhesus No. 6.

CHART 2.

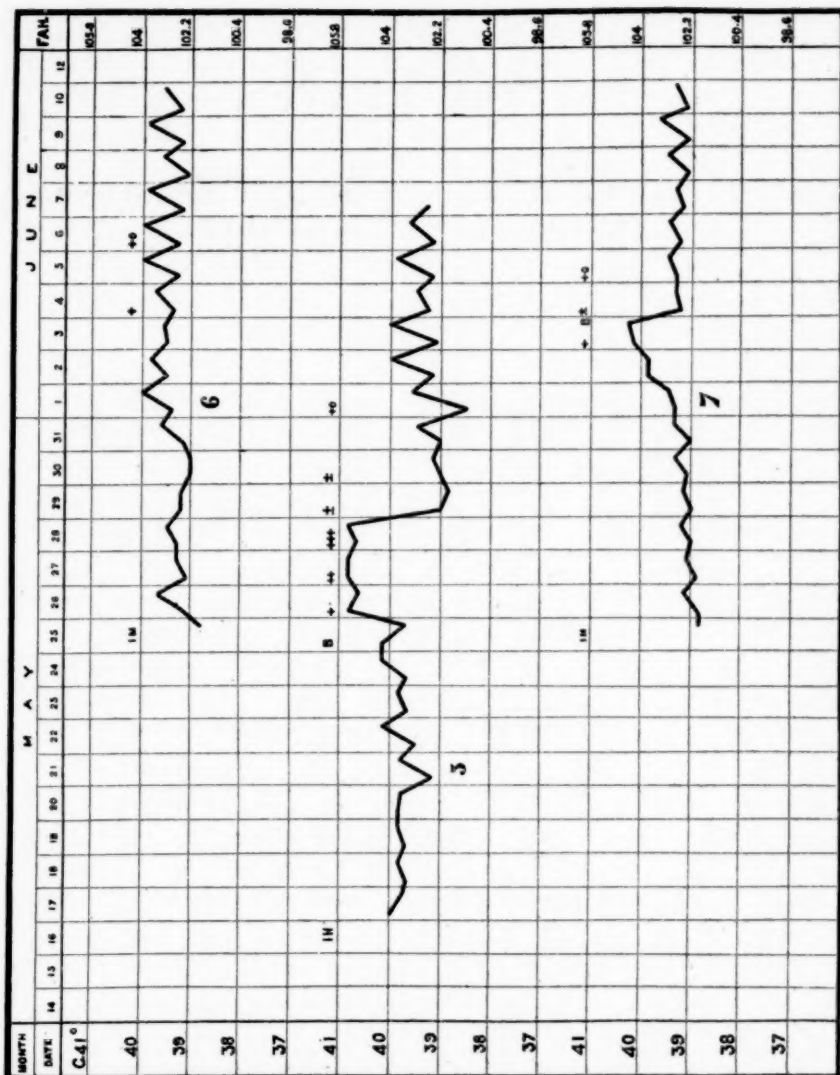


Fig. 5. Temperature curve of rhesus No. 8, inoculated in brain with 0.5 c. c. and into peritoneum with 3 c. c. defibrinated blood of case 4 (fig. 1).

6. Temperature curve of rhesus No. 20, inoculated with defibrinated blood of rhesus No. 8.

7. Temperature curve of rhesus No. 22, inoculated with defibrinated blood of rhesus No. 8.

UNITED STATES.

MUNICIPAL ORDINANCES, RULES, AND REGULATIONS PERTAINING TO PUBLIC HYGIENE.

[Adopted since Jan. 1, 1910.]

WASHINGTON, D. C.

POLIOMYELITIS—NOTIFICATION AND ISOLATION.

Ordered, That every person in charge of any patient in the District of Columbia who is suffering from acute anterior poliomyelitis, commonly known as infantile paralysis, immediately after becoming aware of the existence of such disease shall send to the health officer of said District a certificate, written in ink, signed by such person, stating the name of the disease, the name, age, sex, and color of the person suffering therefrom, and the school which he or she has attended, if any, and setting forth by street and number, or by other sufficient designation, the location of the house, room, or other place in which said patient can be found. As soon as practicable after the temperature of any patient suffering from acute anterior poliomyelitis returns to normal, or, if the temperature of any such patient has not to the knowledge of the person in charge of said patient been above normal, then the person in charge shall send to the health officer of said District a certificate written in ink and certifying to that fact.

SEC. 2. The term "person in charge of any patient," as used in these regulations, shall be held to mean, first, each physician in attendance on, called in to visit, or examining a patient, unless called in to visit or examining the patient solely as a consultant to a physician already in attendance; second, in the absence or disability of any physician aforesaid, or in event of default on the part of such physician, the head of the family to which the patient belongs; third, in the absence or disability of such person, or in event of default on the part of the physician aforesaid, the nearest relative or relatives of such patient present on the premises and in attendance on such patient; fourth, in the absence or disability of all persons aforesaid, or in event of default on the part of the physician aforesaid, every person in attendance on such patient.

SEC. 3. It shall be the duty of the person in charge of any patient suffering from acute anterior poliomyelitis, if said person has power and authority so to do, to adopt each and every of the following precautions to prevent the spread of such disease:

(a) To isolate the patient immediately upon the discovery of the nature of the disease, as thoroughly as is practicable, from all persons who are not suffering from the same disease and who are not necessarily in attendance upon the patient, and to maintain such isolation until the temperature of the patient has returned to normal and for two weeks thereafter, or the death of the patient.

(b) To disinfect each and every article used by or about the patient and all excreta from the patient, and such other articles, if any, as have been specially exposed to infection, before the removal of such article or excreta from said room or rooms if practicable, and otherwise as soon thereafter as is practicable.

(c) To disinfect the room or rooms occupied by the patient, and all articles contained therein, before said room is again occupied and within three days after the removal, recovery, or death of the patient unless such disinfection has been done by the health officer.

SEC. 4. It shall be unlawful for any person having power and authority to prevent, to permit a patient suffering from acute anterior poliomyelitis, at any time between the onset of the disease and the expiration of two weeks after the return of the patient's temperature to normal, to do, and it shall be unlawful for any such patient to do, any of the following things:

(a) To appear upon the public street.

(b) To appear in school, church, store, or place of amusement, or in any other place of public assemblage.

(c) To enter a public conveyance, except a vehicle designated by the health officer for the conveyance generally of persons suffering from minor contagious diseases, or a vehicle designated by the health officer for the conveyance of the particular case.

(d) To go or to be carried from place to place over the public streets without authority from the health officer, except that in case of an emergency, and prior to the reporting of a case, the patient may be moved, under direction of a registered physician, from the place where the case is found to some other place in the District of Columbia suitable for its reception, but in such instances the report cards shall indicate the place where the case occurred as well as the place to which the patient has been moved.

SEC. 5. No person shall knowingly expose himself or any other person, or if he has power and authority to prevent, permit any other person to be exposed, to infection by acute anterior poliomyelitis, unless such exposure is necessary for the proper care and treatment of the patient.

SEC. 6. No person who is nursing a patient suffering from acute anterior poliomyelitis shall mingle with other persons who are not so engaged and who are not suffering from the disease from which the patient is suffering, until after said person has removed such outer garments as have been worn in the sick room and has properly disinfected the hands and face and the hair if the hair has not been covered while in the sick room.

SEC. 7. No person residing in any dwelling house or in any family when there is in said dwelling house or family a patient suffering from acute anterior poliomyelitis shall while so residing and prior to the expiration of two weeks after the temperature of the patient has returned to normal, attend public or private school or Sunday school.

SEC. 8. The health officer shall make such investigations into the nature and origin of cases of acute anterior poliomyelitis occurring in the District of Columbia as in his judgment may be necessary to prevent the spread of said disease and shall cooperate with persons having charge of patients suffering from such disease as he deems needful for the prevention of the spread thereof. And in the discharge of each and every of the duties herein imposed the health officer may act not only in person but also through employees in the service of the health department duly designated by him for that purpose.

SEC. 9. No person shall interfere with the health officer or with any officer, employee, or agent of the health department in the enforcement of these regulations.

SEC. 10. Any person who is suffering from symptoms that so resemble those of acute anterior poliomyelitis that they can not be distinguished therefrom with reasonable certainty shall be regarded for the purposes of these regulations as suffering from said disease.

SEC. 11. Any person who violates any of the provisions of these regulations shall be punished upon conviction thereof by a fine not exceeding \$50 for the first offense and for each subsequent offense by a fine not exceeding \$100.

The above regulations to be effective on and after June 12, 1911. [Regulation of the Commissioners of the District of Columbia, promulgated May 3, 1911.]

PASSAIC, N. J.

MILK—CARE AND SALE OF.

Resolved, That on and after this date no loose milk shall be sold from cans, except from proper booths built from plans and specifications adopted by this board, and that licenses shall be granted to retailers not selling from such booths only on condition that milk be sold from bottles and that all licenses from said date be granted subject to the above conditions. [Resolution, board of health, adopted Jan. 25, 1911.]

Plans and specifications for the milk booth can be had by applying at the office of the board of health.

SEATTLE, WASH.

PROTECTION OF FOODSTUFFS.

SECTION 1. It shall be unlawful to keep, offer for sale, or expose for sale any meat, game, fish, fowl, vegetables, fruit, or prepared food products in open receptacles or broken packages less than two (2) feet above the floor of any building, storeroom, or place in which the same may be sold or offered for sale. It shall also be unlawful to keep smoked fish, cheese, cooked meats, figs, dates, dried fruits, olives, sauerkraut, mince meat, lard, butter, butterine, candy, crackers, cakes, bread, or any prepared food for sale or exposed for sale, unless the same is protected in such manner as to exclude, so far as possible, dust, flies, or other insects from coming in contact therewith.

Apples, oranges, lemons, and fruits which are generally or frequently eaten in the raw condition, when offered for sale in broken packages, shall at all times be so protected by screens or netting as to exclude flies or other insects. All fruits, vegetables, meats, and other foods kept, sold, or offered for sale, shall be kept in receptacles free from decayed matter of every kind.

SEC. 2. All meats, bread, or other food products in transportation from places where such animals are slaughtered, or such food products prepared, shall be protected in such manner while in transit as to exclude dust, flies, or other insects.

SEC. 3. It shall be unlawful to prepare, keep for sale, or sell any kind of meat, fish, fowl, game, vegetables, fruits, or other foods in any room in which a toilet is located or in any room opening directly into a toilet unless there is outside ventilation in such toilet room.

SEC. 4. Any building, place, or vehicle to be occupied or used by any street vendor of tamales, candy, or other human food shall be inspected and approved by the department of health and sanitation before license shall issue to such vendor to conduct such business.

SEC. 5. It shall be unlawful for any person or persons to keep live chickens, ducks, turkeys, or other fowls in any cellar or basement underneath any grocery store, market, or other place where food or food products are kept for sale.

SEC. 6. Any person found guilty of a violation of any of the provisions of this ordinance shall be fined in any sum not exceeding \$100 or imprisoned in the city jail for a term not exceeding thirty (30) days, or may be both fined and imprisoned. [Ordinance No. 24027, approved May 9, 1910.]

STABLES—CONSTRUCTION AND MAINTENANCE.

SEC. 148. *Concrete floors.*—All stable floors shall be constructed of concrete at least 4 inches thick, with a smoothly troweled wearing surface at least three-fourths inch thick composed of Portland cement and an equal quantity of sand: *Provided*, That in lieu of a cement wearing surface vitrified paving brick with grouted joints may be substituted. No concrete or brick stable floor shall be supported by wood joists or be laid on plank.

Wood floors.—*Provided, however*, That in case no part of said stable floors is less than 18 inches above the ground thereunder or adjacent thereto they may be constructed of wood not less than 3½ inches thick, composed of two thicknesses of tongued and grooved or splined plank driven tight, with white-lead paste in all joints, or of one thickness, with all joints calked with oakum and pitch. All wood floors in stables must be built and maintained so as to be water tight, must have adequate provision for expansion if within masonry walls, and must have thorough cross ventilation beneath same.

Drainage.—All stall floors shall drain into gutters; the said gutters and all sumps for washing vehicles shall be connected to a drainage system of cast-iron pipe leading to a trapped catch basin, and from such catch basin proper connection shall be made to a public sewer or cesspool. Openings from gutters and sumps to drains shall be protected by iron strainers set in iron frames so as to be removable. Drainage pipe shall not be less than 4 inches in diameter, except that laterals draining but one stall may be of 3-inch pipe. Catch basins must be constructed of masonry or iron and be at least 2 feet in any internal dimension and be provided with vent pipe not more than 8 inches from seal.

Flushing.—A ½-inch hose bib, equipped with hose, shall be so placed that the drainage system may readily be flushed, and it shall be required that all stable floors be thoroughly cleansed and flushed at least twice each week.

Fire hose.—Stables capable of accommodating 10 or more animals shall be provided with fully equipped fire-hose reels or racks connected to an adequate source of water supply through not less than 1½-inch pipe; said reels or racks shall be of such number and so placed that with 50 feet of hose and ½-inch nozzle with a water pressure of 20 pounds per square inch all parts of the building may be reached.

Manure.—All stables must be provided with water-tight and tightly closed receptacles for manure of such dimensions as to contain all accumulations of manure, and no manure shall be allowed to accumulate on the floors or on adjacent grounds: *Provided, however*, That on premises in the third building district of 1 acre or more in extent manure may be stacked with the approval of the commissioner of health. Receptacles for manure located within any building shall be vented through an air-tight shaft of at least 48 inches sectional area leading to and above the level of the roof and to a point more than 20 feet from any adjacent property.

Exits.—All stables capable of accommodating 10 animals shall have at least two exits 5 feet or more in width at least 30 feet apart and at opposite ends of the building

when practicable. All stables capable of accommodating more than 10 and less than 50 animals shall have exits as hereinabove required, except that the width thereof shall be increased 6 inches for each additional 10 animals. All stables capable of accommodating more than 50 animals shall, in addition to the exits hereinbefore required, have an additional exit or exits as, in the judgment of the superintendent of buildings, the exigency of the case may require.

Runways.—Stables located above the ground floor shall have runways equal in number and width to the exits required by this ordinance, terminating at the exits, said runways to have no greater pitch than 6 to 12.

Stable yards.—No portion of the ground adjacent to any stable shall be used for the purpose of allowing animals to stand or run at large.

Public stables.—It shall be unlawful to erect or convert a building to be used as a stable within the third building district to house animals for hire or as a boarding, community, or dairy stable, without there be filed with the application for a permit the written consent thereto of the owners of two-thirds of the remaining property located within 500 feet of the proposed stable, provided, however, that should there be no building within 500 feet of the proposed stable occupied as a dwelling, flat, apartment, tenement house, or school, such signatures of consent shall not be required.

SEC. 149. *Permit.*—No permit shall issue for the erection or alteration of a building to be used as a stable or for alterations intended to increase the capacity of a stable unless the location of said stable be approved by the board of public works after the said board has given a public hearing to the applicant and to those desiring to protest against the approval of such location; provided, however, that should no protest in writing be filed in the office of the superintendent of buildings within two weeks of the date that application for permit for such erection or alteration is made, the location shall be deemed approved, and the superintendent of buildings is authorized to issue such permit subject to conditions described in section 148 hereof.

Protests.—Protests against the location of a stable or the increase in capacity of a stable must be in writing, signed by the owners of property within 500 feet of the proposed stable, and such protest must plainly indicate by lot and block number the location of property owned by the protestant.

Placard.—It shall be the duty of the superintendent of buildings to cause a placard to be conspicuously posted on the site of any proposed stable not later than 48 hours after the filing of the application for a permit to erect or alter the same, stating thereon the number of animals to be accommodated, the date of filing of application, the date of public hearing in the event of protests being filed, and giving all necessary instructions for the preparation and filing of protests.

Exempt district.—The provisions of this section shall not apply to applications for permits to erect buildings for stable purposes in the first building district, or to erect, alter, or convert buildings for stable purposes when located more than 500 feet from any building occupied as a flat, apartment, hotel, school, or dwelling house. [Sections of ordinance No. 17240 as amended by ordinance No. 24164 approved May 23, 1910.]

PLAGUE-PREVENTION WORK.

INFECTED GROUND SQUIRRELS.

During the week ended May 27, 1911, the finding of 3 plague-infected ground squirrels was reported as follows: In Alameda County, Cal., May 24, at M. J. Cull ranch, 1 squirrel; in San Joaquin County, Cal., May 13, at Cheresky ranch, 5 miles north of Ripon, 1 squirrel; and May 17, at E. D. Moulton ranch, 1 mile northwest of Ripon, 1 squirrel.

DISTRIBUTION OF POISON.

In connection with the making of a squirrel-free zone around the cities of California, on San Francisco Bay, 590 acres of land in Alameda County were covered with poison during the week ended May 27, 1911.

Record of Plague Infection.

Places.	Date of last case of human plague.	Date of last case of rat plague.	Date of last case of squirrel plague.	Total number of rodents found infected since May, 1907.
California:				
Cities—				
San Francisco.....	Jan. 30, 1908.....	Oct. 23, 1908.....	None.....	398 rats.
Oakland.....	Oct. 26, 1909.....	Dec. 1, 1908.....	do.....	126 rats.
Berkeley.....	Aug. 28, 1907.....	None.....	do.....	None.
Los Angeles.....	Aug. 11, 1908.....	do.....	Aug. 21, 1908.....	1 squirrel.
Counties—				
Alameda (exclusive of Oakland and Berkeley).	Sept. 26, 1909.....	Wood rat, Oct. 17, 1909.....	May 24, 1911.....	103 squirrels. 1 wood rat.
Contra Costa.....	July 21, 1908.....	None.....	Apr. 3, 1911.....	248 squirrels.
Merced.....	None.....	do.....	Mar. 20, 1911.....	3 squirrels.
Monterey.....	do.....	do.....	June 6, 1910.....	4 squirrels.
San Benito.....	June 5, 1910.....	do.....	July 11, 1910.....	20 squirrels.
San Joaquin.....	None.....	do.....	May 17, 1911.....	15 squirrels.
San Luis Obispo.....	do.....	do.....	Jan. 29, 1910.....	1 squirrel.
Santa Clara.....	Aug. 23, 1910.....	do.....	Oct. 5, 1910.....	23 squirrels.
Santa Cruz.....	None.....	do.....	May 17, 1910.....	3 squirrels.
Stanislaus.....	do.....	do.....	Apr. 10, 1911.....	11 squirrels.
Washington:				
Cities—				
Seattle.....	Oct. 30, 1907.....	Feb. 8, 1910.....	None.....	22 rats.

Rats Collected and Examined for Plague Infection.

Places.	Week ended—	Found dead.	Total collected.	Examined.	Found infected.
California:					
Cities—					
Berkeley.....	May 27.....		¹ 124	84	.....
Oakland.....	do.....	37	² 611	473	.....
San Francisco.....	do.....	28	³ 1,611	1,053	.....
Counties—					
Santa Clara.....	do.....		⁴ 2	2	.....
Washington:					
Cities—					
Seattle.....	do.....		1,143	974	.....
Total.....		65	3,491	2,586	.....

¹ Identified, *Mus norvegicus* 89, *Mus musculus* 35.

² Identified, *Mus norvegicus* 545, *Mus musculus* 66.

³ Identified, *Mus norvegicus* 962, *Mus musculus* 357, *Mus rattus* 159, *Mus alexandrinus* 133.

⁴ Identified, *Mus alexandrinus* 2.

Squirrels Collected and Examined for Plague Infection.

Places.	Week ended—	Shot or trapped.	Found dead.	Examined.	Found infected.
California:					
Counties—					
Alameda.....	May 27	86	8	94	1
Colusa.....	do.	66		66	
Contra Costa.....	do.	65		65	
Eldorado.....	do.	25		25	
Fresno.....	do.	115		115	
Glenn.....	do.	59		59	
Kern.....	do.	8		8	
Lake.....	do.	143		143	
Los Angeles.....	do.	298		295	
Madera.....	do.	245		241	
Mariposa.....	do.	86		86	
Mendocino.....	do.	142	10	152	
Merced.....	do.	339	2	335	
Monterey.....	do.	1,280	2	1,271	
Nevada.....	do.	7		7	
Riverside.....	do.	267		265	
San Benito.....	do.	168		168	
San Bernardino.....	do.	43		43	
San Joaquin.....	do.	331		331	2
San Luis Obispo.....	do.	333		330	
San Mateo.....	do.	41		41	
Santa Clara.....	do.	185	9	194	
Siskiyou.....	do.	31		31	
Sonoma.....	do.	40		40	
Stanislaus.....	do.	289		289	
Sutter.....	do.	5		5	
Tehama.....	do.	25		25	
Yolo.....	do.	85		85	
Oregon:					
County—					
Jackson.....	do.	20		20	
Total.....		4,827	31	4,829	3

Other Animals Collected and Examined.

Places.	Week ended—	Animals collected.	Examined.	Found infected.
California:				
Counties—				
Eldorado.....	May 27	4 kangaroo rats.....		
Fresno.....	do.	3 rabbits, 2 owls.....	3	
Kern.....	do.	4 rabbits, 3 chipmunks.....	7	
Los Angeles.....	do.	3 rabbits.....	3	
Madera.....	do.	do.....	3	
Merced.....	do.	7 rabbits.....	7	
Monterey.....	do.	3 rabbits, 12 chipmunks.....	15	
Riverside.....	do.	3 rabbits.....	3	
San Benito.....	do.	3 rabbits, 1 kangaroo rat.....	4	
San Joaquin.....	do.	10 rabbits.....	10	
San Luis Obispo.....	do.	5 rabbits.....	5	
Santa Clara.....	do.	9 rabbits.....	9	
Siskiyou.....	do.	1 rabbit.....	1	
Sonoma.....	do.	3 rabbits.....	3	
Stanislaus.....	do.	5 rabbits.....	5	
Tehama.....	do.	1 rabbit.....	1	
Yolo.....	do.	6 rabbits.....	6	
Oregon:				
County—				
Jackson.....	do.	3 chipmunks.....	3	
Total.....			88	

SMALLPOX IN THE UNITED STATES.

In the following tables the States indicated by an asterisk are those from which reports of smallpox are received only from certain city and, in some cases, county boards of health. In these States, therefore, the recorded cases and deaths should not be taken as showing the general prevalence of the disease. In the States not marked by an asterisk the reports are received monthly from the State boards of health and include all cases reported throughout the State.

Reports Received During Week Ended June 16, 1911.

Places.	Date.	Cases.	Deaths.	Remarks.
*Alabama:				
Montgomery.....	May 28-June 3....	2	.....
*Arkansas:				
Little Rock.....	May 1-31.....	4	.....
California:				
Counties—				
Fresno.....	Apr. 1-30.....	8	.....
Los Angeles.....	do.....	11	.....
Total for State.....		19	.....
Colorado.....	Jan. 1-Mar. 31....	3	.....	Not previously reported.
Counties—				
Adams.....	Apr. 1-30.....	2	.....
Archuleta.....	do.....	1	.....
Boulder.....	do.....	5	.....
Chaffee.....	do.....	10	.....
Conejos.....	do.....	23	.....
Delta.....	do.....	1	.....
Denver.....	do.....	75	.....
Douglas.....	do.....	1	.....
El Paso.....	do.....	1	.....
Fremont.....	do.....	3	.....
Garfield.....	do.....	4	.....
Gunnison.....	do.....	21	.....
Huerfano.....	do.....	2	.....
Larimer.....	do.....	26	.....
Las Animas.....	do.....	15	.....
Lincoln.....	do.....	26	.....
Montrose.....	do.....	1	.....
Otero.....	do.....	10	.....
Pueblo.....	do.....	31	.....
Routt.....	do.....	9	.....
Rio Grande.....	do.....	4	.....
San Miguel.....	do.....	3	.....
Teller.....	do.....	1	.....
Weld.....	do.....	9	.....
Total for State.....		284	.....
Chaffee.....	May 1-31.....	7	.....
Clear Creek.....	do.....	1	.....
Delta.....	do.....	4	.....
Denver.....	do.....	48	.....
Ebert.....	do.....	1	.....
El Paso.....	do.....	9	.....
Jefferson.....	do.....	5	.....
Kit Carson.....	do.....	2	.....
Larimer.....	do.....	20	.....
Las Animas.....	do.....	5	.....
Lincoln.....	do.....	1	.....
Logan.....	do.....	1	.....
Mesa.....	do.....	3	.....
Moffat.....	do.....	3	.....
Otero.....	do.....	9	.....
Pitkin.....	do.....	1	.....
Pueblo.....	do.....	4	.....
Routt.....	do.....	2	.....
San Miguel.....	do.....	2	.....
Weld.....	do.....	11	.....
Total for State.....		139	.....
Connecticut.....	May 1-31.....	.....	.....	No cases.

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received During Week Ended June 16, 1911.

Places.	Date.	Cases.	Deaths.	Remarks.
District of Columbia.....	May 28-June 3....	6		
Florida:				
Counties—				
Alachua.....	May 21-27.....	2		
Brevard.....	do.....	2		
Duval.....	do.....	23		
De Soto.....	do.....	1		
Escambia.....	do.....	6		
Hillsboro.....	do.....	1		
Jackson.....	do.....	38		
Putnam.....	do.....	11		
Polk.....	do.....	4		
Santa Rosa.....	do.....	2		
St. John.....	do.....	2		
Total for State.....		92		
Iowa:				
Counties—				
Adams.....	May 1-31.....	5		
Audubon.....	do.....	1		
Carroll.....	do.....	1		
Clay.....	do.....	1		
Crawford.....	do.....	1		
Decatur.....	do.....	1		
Fremont.....	do.....	24		
Guthrie.....	do.....	1		
Jasper.....	do.....	1	1	
Johnson.....	do.....	2		
Keokuk.....	do.....	1		
Linn.....	do.....	29		
Lyon.....	do.....	3		
Madison.....	do.....	5		
Marshall.....	do.....	7		
Mills.....	do.....	10		
Folk.....	do.....	22		
Pottawattamie.....	do.....	15		
Sack.....	do.....	7		
Scott.....	do.....	8		
Shelby.....	do.....	1		
Taylor.....	do.....	1		
Total for State.....		147	1	
Louisiana:				
New Orleans.....	May 28-June 3....	5		
Maryland:				
Counties—				
Frederick.....	May 1-31.....	2		
Washington.....	do.....	7		
Total for State.....		9		
Massachusetts:				
Counties—				
Essex.....	May 1-31.....	1		
Middlesex.....	do.....	1		
Norfolk.....	do.....	2		
Total for State.....		4		
* Missouri:				
Kansas City.....	Mar. 1-31.....	60		
St. Louis.....	Apr. 1-30.....	62		
	May 20-27.....	10		Including 44 cases previously reported.
Total for State.....		132		
New Hampshire.....	Jan. 1-June 8....	30		Approximate.
North Dakota:				
Counties—				
Barnes.....	May 1-31.....	1		
Billings.....	do.....	2		
Cass.....	do.....	1		
Nelson.....	do.....	2		
Stutsman.....	do.....	1		
Trail.....	do.....	1		
Total for State.....		8		

SMALLPOX IN THE UNITED STATES—Continued.
Reports Received During Week Ended June 16, 1911.

Places.	Date.	Cases.	Deaths.	Remarks.
Pennsylvania.....	Apr. 1-30.....	13		
South Dakota.....	Jan. 1-31.....	66		
	Feb. 1-28.....	102		
	Mar. 1-31.....	81		
Total for State.....		249		
* Tennessee:				
Nashville.....	May 28-June 3....	1		
Washington:				
Counties—				
Chehalis.....	Apr. 1-30.....	7		
Clallam.....	do.....	4		
Cowlitz.....	do.....	1		
Grant.....	do.....	14		
King.....	do.....	47		
Kittitas.....	do.....	1		
Lewis.....	do.....	5		
Mason.....	do.....	9		
Pierce.....	do.....	6		
Skagit.....	do.....	8		
Snohomish.....	do.....	2		
Spokane.....	do.....	3		
Thurston.....	do.....	1		
Whatcom.....	do.....	16		
Whitman.....	do.....	7		
Yakima.....	do.....	7		
Total for State.....		138		

Reports Received from Dec. 31, 1910, to June 9, 1911.

[For reports received from June 25, 1910, to Dec. 30, 1910, see Public Health Reports for Dec. 30, 1910. In accordance with custom, the tables of epidemic diseases are terminated semiannually and new tables begun.]

Places.	Date.	Cases.	Deaths.	Remarks.
*Alabama:				
Birmingham.....	Apr. 2-May 6.....	4		
Mobile Quarantine Station.	May 8.....			One case from steamship Alamo, from New York via Key West and Tampa.
Montgomery.....	Dec. 11-May 27...	29		
Total for State.....		33		
* California:				
Counties—				
Alameda.....	Dec. 1-31.....	3		
Imperial.....	do.....	1		
Humboldt.....	Dec. 1-Jan. 31....	2		
Kern.....	Dec. 1-31.....	1		
Los Angeles.....	Dec. 1-Mar. 31....	2		
Mariposa.....	Jan. 1-31.....	1		
Monterey.....	Mar. 1-31.....	1		
Napa.....	do.....	1		
Riverside.....	Jan. 1-Mar. 31....	24	1	
San Bernardino.....	Jan. 1-31.....	3		
San Diego.....	Dec. 1-Feb. 28....	16	1	
San Francisco.....	do.....	11		
San Joaquin.....	Dec. 1-31.....	2		
Santa Clara.....	Feb. 1-28.....	1		
Santa Cruz.....	F. b. 1-Mar. 31....	2		
Ventura.....	Jan. 1-31.....	9		
Total for State.....		80	2	
Colorado:				
Counties—				
Adams.....	Dec. 1-Jan. 31....	6		
Arapahoe.....	Dec. 1-Feb. 28....	19		
Archuleta.....	Dec. 1-Mar. 31....	35		
Boulder.....	do.....	28		
Chaffee.....	Mar. 1-31.....	2		
Conejos.....	Dec. 1-31.....	2		
Costilla.....	Jan. 1-31.....	5		
Delta.....	Feb. 1-Mar. 31....	11		

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received from Dec. 31, 1910, to June 9, 1911.

Places.	Date.	Cases.	Deaths.	Remarks.
Colorado—Continued.				
Counties—Continued.				
Denver.....	Dec. 1-Mar. 31....	317	.....
Douglas.....	Mar. 1-31.....	1	.....
Eagle.....	Jan. 1-31.....	1	.....
Elbert.....	Feb. 1-Mar. 31....	21	.....
El Paso.....	Dec. 1-Mar. 31....	26	.....
Fremont.....	do.....	12	.....
Garfield.....	Jan. 1-31.....	4	.....
Gilpin.....	do.....	1	.....
Grand.....	Dec. 1-31.....	2	.....
Gunnison.....	Mar. 1-31.....	1	.....
Huerfano.....	Dec. 1-Mar. 31....	20	.....
Jefferson.....	do.....	15	.....
Kit Carson.....	Jan. 1-31.....	1	.....
La Plata.....	Dec. 1-Mar. 31....	24	.....
Larimer.....	Jan. 1-Mar. 31....	99	.....
Las Animas.....	Dec. 1-Mar. 31....	51	.....
Lincoln.....	Mar. 1-31.....	2	.....
Logan.....	do.....	2	.....
Mineral.....	Jan. 1-31.....	2	.....
Montezuma.....	Dec. 1-31.....	1	.....
Montrose.....	Jan. 1-Mar. 31....	15	.....
Morgan.....	Dec. 1-Mar. 31....	54	.....
Otero.....	Feb. 1-Mar. 31....	11	.....
Phillips.....	Feb. 1-28.....	20	.....
Pueblo.....	Dec. 1-Mar. 31....	6	1	
Rio Grande.....	Jan. 1-Mar. 31....	14	.....
Saguache.....	Dec. 1-31.....	3	.....
Sedgwick.....	Mar. 1-31.....	3	.....
Summit.....	Feb. 1-28.....	1	.....
Teller.....	Jan. 1-Mar. 31....	9	.....
Weld.....	Feb. 1-Mar. 31....	10	.....
Yuma.....	Mar. 1-31.....	1	.....
Total.....		858	1	
Connecticut.....	Dec. 1-Apr. 30....			No cases.
•Delaware:				
Reedy Island Quarantine.....	May 1.....			One case from s. s. Haverford from Liverpool.
District of Columbia.....	Jan. 15-May 27....	17		
Florida:				
Counties—				
Alachua.....	Dec. 18-Apr. 22....	88	1	
Baker.....	Jan. 8-14.....	1	.....
Bradford.....	Jan. 16-May 6.....	8	.....
Brevard.....	Feb. 19-May 20....	7	.....
Calhoun.....	Jan. 29-Mar. 25....	27	.....
Citrus.....	Jan. 8-Mar. 11....	2	.....
Clay.....	May 16-22.....	11	.....
Dade.....	Dec. 25-May 13....	6	.....
De Soto.....	Mar. 1-May 13.....	6	.....
Duval.....	Jan. 1-May 20....	340	1	
Escambia.....	Jan. 1-May 13.....	123	.....
Franklin.....	Jan. 8-May 13.....	27	1	
Gadsden.....	Dec. 18-May 13....	128	.....
Hamilton.....	Mar. 26-Apr. 1.....	1	.....
Hillsboro.....	Dec. 25-May 20....	131	.....
Jackson.....	Dec. 25-May 13....	193	.....
Fernando.....	Mar. 19-25.....	1	.....
Jefferson.....	Feb. 5-May 6.....	5	.....
Lafayette.....	Jan. 16-Feb. 4.....	6	.....
Lake.....	Jan. 22-Apr. 8.....	11	.....
Lee.....	Jan. 8-Mar. 4.....	21	.....
Leon.....	Dec. 18-May 6.....	144	2	
Levy.....	Jan. 26-May 6.....	4	.....
Liberty.....	Feb. 26-Apr. 15....	7	.....
Madison.....	Dec. 18-Jan. 21....	19	.....
Manatee.....	Mar. 26-Apr. 1.....	1	.....
Marion.....	May 7-13.....	1	.....
Nassau.....	Jan. 16-21.....	2	.....
Orange.....	do.....	1	.....
Osceola.....	Mar. 25.....	3	.....
Pasco.....	Apr. 2-8.....	5	.....
Polk.....	Dec. 18-May 20....	151	.....
Putnam.....	Feb. 12-Apr. 22....	9	.....
St. John.....	Jan. 22-May 6.....	7	.....
Santa Rosa.....	Jan. 8-Apr. 29....	38	.....
Sumpter.....	May 7-13.....	1	.....

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received from Dec. 31, 1910, to June 9, 1911.

Places.	Date.	Cases.	Deaths.	Remarks.
Florida—Continued.				
Counties—Continued				
Suwanee.....	Jan. 16-21.....	1		
Taylor.....	Jan. 8-Feb. 4.....	140		
Volusia.....	May 20.....	16		
Wakula.....	Mar. 1-31.....	2		
Walton.....	Dec. 25-Feb. 25.....	8		
Washington.....	Jan. 8-Apr. 8.....	8		
Total for State.....		1,711	5	
*Georgia:				
Macon.....	Mar. 1-Apr. 30.....	14		
Illinois:				
Counties—				
Adams.....	Feb. 1-Apr. 30.....	6		
Alexander.....	Apr. 1-30.....	1		
Bond.....	Jan. 1-Apr. 30.....	10		
Carroll.....	Feb. 1-28.....	1		
Clay.....	Feb. 1-Mar. 31.....	4		
Clinton.....	Mar. 1-Apr. 30.....	44		
Coles.....	Dec. 1-Apr. 30.....	15		
Cook.....	do.....	59		
Douglas.....	Mar. 1-Apr. 30.....	8		
Edgar.....	do.....	9		
Effingham.....	Dec. 31-Feb. 28.....	2		
Fulton.....	Apr. 1-30.....	5		
Jackson.....	Mar. 1-Apr. 30.....	10		
Jasper.....	Dec. 1-31.....	4		
Jefferson.....	do.....	4		
Kane.....	Dec. 1-Apr. 30.....	30		
Livingston.....	Mar. 1-31.....	1		
Logan.....	Apr. 1-30.....	3		
McLean.....	Jan. 1-Apr. 30.....	28		
Macoupin.....	Feb. 1-Mar. 31.....	2		
Madison.....	Dec. 1-Apr. 30.....	22		
Mercer.....	Apr. 1-30.....	1		
Massac.....	Mar. 1-31.....	1		
Montgomery.....	Apr. 1-30.....	6		
Morgan.....	do.....	5		
Peoria.....	Dec. 1-Mar. 31.....	9		
Perry.....	Dec. 1-31.....	2		
Pulaski.....	Mar. 1-Apr. 30.....	3		
Rock Island.....	Mar. 1-31.....	1		
Saint Clair.....	Apr. 1-30.....	7		
Saline.....	Jan. 1-Feb. 28.....	8		
Shelby.....	Mar. 1-Apr. 30.....	8		
Stevenson.....	Jan. 1-31.....	3		
Tazewell.....	Mar. 1-31.....	2		
Union.....	Dec. 1-Feb. 28.....	17		
Vermilion.....	Jan. 1-Apr. 30.....	20		
Washington.....	Feb. 1-28.....	1		
White.....	Apr. 1-30.....	12		
Williamson.....	Jan. 1-31.....	1		
Total for State.....		368		
Indiana:				
Counties—				
Adams.....	Feb. 1-28.....	6		
Allen.....	Feb. 1-Apr. 30.....	5		
Benton.....	Apr. 1-30.....	1		
Blackford.....	Feb. 1-Apr. 30.....	21		
Cass.....	Jan. 1-Apr. 30.....	29	1	
Clark.....	Mar. 1-Apr. 30.....	21		
Clay.....	Feb. 1-Apr. 30.....	11		
Daviess.....	Feb. 1-28.....	1		
Decatur.....	Jan. 1-Apr. 30.....	4		
Dekalb.....	Dec. 1-Feb. 28.....	9		
Delaware.....	Feb. 1-Apr. 30.....	19		
Elkhart.....	Dec. 1-31.....	5		
Floyd.....	Apr. 1-30.....	4		
Fountain.....	Mar. 1-Apr. 30.....	3	1	
Greene.....	Feb. 1-28.....	1		
Howard.....	Dec. 1-Apr. 30.....	49		
Huntington.....	Feb. 1-Apr. 30.....	5		
Jay.....	Apr. 1-30.....	1		
Jennings.....	Jan. 1-31.....	6		
Knox.....	Dec. 1-Mar. 31.....	11		
Lake.....	Mar. 1-31.....	1		

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received from Dec. 31, 1910, to June 9, 1911.

Places.	Date.	Cases.	Deaths.	Remarks.
Indiana—Continued.				
Counties—Continued.				
Laporte.....	Apr. 1-30.....	5		
Madison.....	Dec. 1-Apr. 30.....	199		
Marion.....	Jan. 1-Apr. 30.....	5		
Miami.....	Apr. 1-30.....	1		
Montgomery.....	Dec. 1-Mar. 31.....	15		
Monroe.....	Mar. 1-31.....	1		
Noble.....	Jan. 1-31.....	1		
Posey.....	Jan. 1-Apr. 30.....	2		
Pulaski.....	Apr. 1-30.....	1		
Shelby.....	Mar. 1-31.....	25		
St. Joseph.....	Feb. 1-Apr. 30.....	8		
Steuben.....	Jan. 1-Feb. 28.....	7		
Sullivan.....	Mar. 1-Apr. 30.....	3		
Tippecanoe.....	Mar. 1-31.....	1		
Tipton.....	Apr. 1-30.....	7		
Vermillion.....	do.....	3		
Vigo.....	Jan. 1-Mar. 31.....	24		
Wabash.....	Feb. 1-Mar. 31.....	18		
Warren.....	Jan. 1-Mar. 31.....	2		
Wayne.....	Jan. 1-Apr. 30.....	28		
Wells.....	Mar. 1-Apr. 30.....	7		
White.....	Apr. 1-30.....	2		
Total for State.....		578	2	
Iowa:				
Counties—				
Benton.....	Jan. 1-Apr. 30.....	13		
Blackhawk.....	Feb. 1-Apr. 30.....	28		
Boone.....	Feb. 1-28.....	1		
Buena Vista.....	Dec. 1-31.....	1		
Carroll.....	Mar. 1-31.....	3		
Cherokee.....	do.....	1		
Dallas.....	Feb. 1-Mar. 31.....	3		
Decatur.....	Mar. 1-31.....	2		
Dubuque.....	Feb. 1-28.....	1		
Fayette.....	Apr. 1-30.....	2		
Fremont.....	Feb. 1-Mar. 31.....	8		
Grundy.....	Apr. 1-30.....	1		
Guthrie.....	Jan. 1-Apr. 30.....	8		
Hancock.....	Jan. 1-31.....	3		
Iowa.....	Apr. 1-30.....	1		
Jasper.....	do.....	2		
Jefferson.....			1	Year 1910, in delinquent report received after Jan. 1, 1911.
Johnson.....	Jan. 1-31.....	1		
Jones.....	Apr. 1-30.....	1		
Keokuk.....	do.....	7		
Lee.....	Dec. 1-31.....	1		
Linn.....	Dec. 1-Apr. 30.....	122	1	
Lucas.....	Jan. 1-31.....	1		
Lyon.....	Dec. 1-Apr. 30.....	5		
Madison.....	Apr. 1-30.....	1		
Mahaska.....	Feb. 1-28.....	1		
Marshall.....	Dec. 1-Apr. 30.....	17		
Mills.....	Apr. 1-30.....	3		
Montgomery.....	do.....	3		
Muscatine.....	Mar. 1-31.....	1		
Page.....	Dec. 1-Mar. 31.....	36	1	
Plymouth.....	Mar. 1-Apr. 30.....	2		
Polk.....	Dec. 1-Apr. 30.....	38		
Pottawattamie.....	Jan. 1-Apr. 30.....	18		
Sac.....	Apr. 1-30.....	16		
Scott.....	Dec. 1-Feb. 28.....	7		
Sioux.....	Feb. 1-Mar. 31.....	2		
Tama.....	Mar. 1-31.....	1		
Taylor.....	Dec. 1-31.....	64		
Union.....	Jan. 1-Feb. 28.....	3		
Warren.....	Dec. 1-Apr. 30.....	3		
Webster.....	Dec. 1-31.....	10		
Winnebago.....	Jan. 1-31.....	1		
Woodbury.....	Dec. 1-Mar. 31.....	15		
Total for State.....		459	3	

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received from Dec. 31, 1910, to June 9, 1911.

Places.	Date.	Cases.	Deaths.	Remarks.
Kansas:				
Counties—				
Pawnee.....	Nov. 1-30.....	1		Reported out of date. Do.
Reno.....	do.....	1		
Allen.....	Dec. 1-Feb. 28.....	7		
Anderson.....	Jan. 1-31.....	1		
Atchison.....	Dec. 1-Mar. 31.....	32		
Barton.....	Feb. 1-Mar. 28.....	2		
Bourbon.....	Mar. 1-31.....	8		
Brown.....	Dec. 1-Mar. 31.....	57	1	
Butler.....	Dec. 1-Jan. 31.....	2		
Cherokee.....	Dec. 1-Mar. 31.....	119		
Clay.....	Dec. 1-Feb. 28.....	15		
Cloud.....	Feb. 1-Mar. 31.....	76		
Crawford.....	Feb. 1-28.....	3		
Decatur.....	Dec. 1-31.....	1		
Dickinson.....	Dec. 1-Mar. 31.....	34		
Doniphan.....	do.....	23		
Douglas.....	Jan. 1-Feb. 28.....	7		
Ford.....	Mar. 1-31.....	1		
Greenwood.....	Feb. 1-Mar. 31.....	92		
Harper.....	Jan. 1-Mar. 31.....	20		
Jackson.....	Feb. 1-Mar. 31.....	11		
Jefferson.....	Dec. 1-Mar. 31.....	13		
Jewell.....	Jan. 1-31.....	17		
Johnson.....	Dec. 1-Mar. 31.....	34		
Kearny.....	Jan. 1-Mar. 31.....	7		
Kingman.....	Dec. 1-Feb. 28.....	2		
Leavenworth.....	Jan. 1-Mar. 31.....	11		
Leavenworth.....	Dec. 1-Mar. 31.....	5	1	
Linn.....	Mar. 1-31.....	3		
Lyon.....	Jan. 1-31.....	1		
McPherson.....	Feb. 1-Mar. 31.....	6		
Marion.....	Jan. 1-Feb. 28.....	6		
Marshall.....	Dec. 1-Mar. 31.....	136		
Miami.....	Feb. 1-28.....	1		
Mitchell.....	Apr. 1-30.....	18		
Montgomery.....	Dec. 1-Mar. 31.....	30		
Morris.....	Mar. 1-31.....	9		
Morton.....	Jan. 1-Feb. 28.....	12		
Nemaha.....	Dec. 1-Feb. 28.....	8		
Norton.....	Jan. 1-Mar. 31.....	5		
Osage.....	Dec. 1-Mar. 31.....	2		
Ottawa.....	Feb. 1-Mar. 31.....	39	1	
Pottawatomie.....	Jan. 1-Mar. 31.....	19		
Reno.....	Dec. 1-31.....	1		
Republic.....	Mar. 1-31.....	9		
Riley.....	Jan. 1-31.....	8		
Rooks.....	Dec. 1-Mar. 31.....	2		
Russell.....	Jan. 1-Feb. 28.....	2	1	
Saline.....	Jan. 1-Mar. 31.....	29		
Sedgwick.....	do.....	5		
Shawnee.....	Dec. 1-Mar. 31.....	14		
Sumner.....	Dec. 1-31.....	6		
Washington.....	Jan. 1-Feb. 28.....	5		
Wichita.....	Feb. 1-28.....	2		
Wilson.....	do.....	1		
Wyandotte, exclusive of Kansas City.....	Dec. 1.....	15		
Kansas City.....	Dec. 1-Mar. 31.....	52		
Total for State.....		1,048	3	
*Kentucky:				
Henderson.....	Feb. 22-28.....	4		
Lexington.....	Feb. 26-Apr. 8.....	3		
Newport.....	Apr. 23-May 6.....	2		
Paducah.....	Jan. 23-Apr. 22.....	33		
Total for State.....		42		
Louisiana:				
Parishes—				
Ascension.....	Dec. 1-31.....	1		
Calcasieu.....	Jan. 1-31.....	13	1	
East Baton Rouge.....	Dec. 1-31.....	25		
East Feliciana.....	do.....	30		
Iberville.....	do.....	6		
Lafourche.....	Jan. 1-31.....	16		
Orleans—				
New Orleans.....	Dec. 18-May 27.....	223	1	

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received from Dec. 31, 1910, to June 9, 1911.

Places.	Date.	Cases.	Deaths.	Remarks.
Louisiana—Continued.				
Parishes—Continued.				
Rapides.....	Dec. 1-31.....	1		
St. Charles.....	.....do.....	4		
St. John.....	.....do.....	1		
Tangipahoa.....	Nov. 1-Dec. 31.....	22		
Tensas.....	Dec. 1-Jan. 31.....	20		
Washington.....	.....do.....	5		
Total for State.....		367	2	
Maine.				
Counties—	Dec. 1-Mar. 31.....			No cases.
Penobscot.....	Apr. 1-May 31.....	2		
Piscataquis.....	.....do.....	4		
Total for State.....		6		
Maryland.				
Counties—				December and March, no cases.
Baltimore.....	Feb. 1-28.....	2		
Garrett.....	Jan. 1-Feb. 28.....	10		
Washington.....	Apr. 1-30.....	5		
Total for State.....		17		
Massachusetts.				
Counties—				Nov. 1-Mar. 31, no cases.
Suffolk.....	Apr. 1-30.....	1		
Michigan.				
Counties—	Jan. 1-Feb. 28.....	16		Not previously reported.
Alcona.....	Dec. 1-31.....	1		
Alger.....	Dec. 1-Feb. 28.....	2		
Alpena.....	Jan. 1-Mar. 31.....	2		
Antrim.....	Jan. 1-Apr. 30.....	11		
Arenac.....	Dec. 1-Jan. 31.....	7		
Barry.....	Feb. 1-28.....	1		
Bay.....	Dec. 1-Jan. 31.....	2		
Calhoun.....	Dec. 1-Apr. 30.....	19	1	
Cass.....	Feb. 1-28.....	2		
Charlevoix.....	Dec. 1-Feb. 28.....	24		
Cheboygan.....	Dec. 1-Apr. 30.....	49		
Chippewa.....	Mar. 1-31.....	1		
Clars.....	Jan. 1-31.....	8		
Clinton.....	Dec. 1-31.....	3		
Crawford.....	Dec. 1-Jan. 31.....	6		
Eaton.....	Dec. 31-Apr. 30.....	8		
Emmet.....	Jan. 1-Apr. 30.....	95		
Genesee.....	Dec. 1-Feb. 28.....	14	1	
Gladwin.....	.....do.....	4	1	
Grand Traverse.....	Dec. 1-Mar. 31.....	4		
Gratiot.....	Dec. 1-Feb. 28.....	10		
Houghton.....	Feb. 1-28.....	5		
Huron.....	Jan. 1-Apr. 30.....	10		
Ingham.....	Dec. 1-Mar. 31.....	4		
Ionia.....	Jan. 1-Apr. 30.....	28		
Iron.....	Apr. 1-30.....	1		
Isabella.....	Dec. 1-Apr. 30.....	25		
Kalamazoo.....	Dec. 1-Jan. 31.....	6		
Kent.....	Mar. 1-31.....	2		
Keweenaw.....	Dec. 1-Feb. 28.....	16		
Lake.....	Dec. 1-31.....	3		
Lapeer.....	.....do.....	1		
Leelanau.....	Jan. 1-31.....	2		
Lenawee.....	Apr. 1-30.....	1		
Livingston.....	Feb. 1-28.....	1		
Mackinac.....	.....do.....	4		
Macomb.....	Feb. 1-Mar. 31.....	14		
Marquette.....	Dec. 1-Mar. 31.....	11		
Mason.....	Mar. 1-Apr. 30.....	3		
Midland.....	Dec. 1-31.....	3		
Missaukee.....	.....do.....	3		
Monroe.....	.....do.....	2		
Muskegon.....	Jan. 1-Apr. 30.....	4		
Newaygo.....	Jan. 1-31.....	3		
Oceana.....	Mar. 1-Apr. 30.....	17		
Presque Isle.....	Dec. 1-Mar. 31.....	2		
Saginaw.....	.....do.....	4	3	
St. Clair.....	Dec. 1-Apr. 30.....	11		
Sanilac.....	Jan. 1-Feb. 28.....	8		

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received from Dec. 31, 1910, to June 9, 1911.

Places.	Date.	Cases.	Deaths.	Remarks.
Michigan—Continued.				
Counties—Continued.				
Shiawassee.....	Mar. 1-31.....	3		
Tuscola.....	do.....	1		
Van Buren.....	Apr. 1-30.....	1		
Washtenaw.....	Dec. 1-Apr. 30.....	8		
Wayne.....	do.....	7		
Wexford.....	Dec. 1-Mar. 31.....	6		
Total for State.....		509	6	
Minnesota:				
Counties—				
Beltrami.....	Dec. 19-Feb. 13....	6		
Bigstone.....	Dec. 26-Jan. 1....	1		
Blue Earth.....	Dec. 19-Mar. 20....	2		
Cass.....	Apr. 25-May 1.....	4		
Dakota.....	Feb. 1-Mar. 27....	2		
Douglas.....	Dec. 5-Apr. 17....	4		
Fillmore.....	Nov. 27-Apr. 24....	6		
Hennepin.....	Dec. 3-Apr. 3.....	103		
Hubbard.....	Apr. 25-May 1....	1		
Itasca.....	Feb. 20-27.....	1		
Kandiyohi.....	Jan. 24-30.....	1		
Koochiching.....	Dec. 5-Feb. 13....	12		
Lac qui Parle.....	Jan. 10-16.....	1		
Le Sueur.....	Dec. 26-Mar. 16....	5		
Lyon.....	Feb. 14-Apr. 10....	8		
Marshall.....	Mar. 1-6.....	1		
Mower.....	Apr. 18-May 1.....	4		
Murray.....	Jan. 17-Apr. 6....	7		
Nobles.....	Dec. 5-Feb. 27....	4		
Norman.....	Dec. 12-May 1.....	27		
Olmstead.....	Jan. 10-Apr. 10....	7		
Ottertail.....	Mar. 7-May 1.....	8		
Pipestone.....	Jan. 10-Apr. 17....	12		
Pope.....	Jan. 3-9.....	3		
Ramsey.....	Dec. 5-May 1.....	266		
Redwood.....	Apr. 25-May 1.....	1		
Renville.....	Apr. 11-17.....	3		
Rice.....	Feb. 14-20.....	1		
Rock.....	Feb. 1-Apr. 24....	2		
Sherburne.....	Apr. 18-May 1.....	2		
St. Louis.....	Nov. 27-Apr. 10....	10		
Sibley.....	Dec. 26-Jan. 16....	2		
Steele.....	Mar. 1-31.....	1		
Todd.....	Dec. 5-Apr. 10....	25		
Traverse.....	Feb. 1-6.....	1		
Wabasha.....	Dec. 26-Mar. 6....	2		
Wadena.....	Dec. 26-Jan. 2....	2		
Washington.....	Feb. 7-Mar. 20....	10		
Winona.....	Jan. 17-23.....	1		
Yellow Medicine.....	Apr. 25-May 1.....	1		
Total for State.....		560		
*Mississippi:				
Biloxi.....	Mar. 13.....			Present.
Gulfport.....	May 13-19.....	1		
*Missouri:				
Kansas City.....	Nov. 1-Apr. 29....	288		
St. Joseph.....	Feb. 5-18.....	16		
St. Louis.....	Dec. 18-May 23....	82	1	
Springfield.....	Feb. 5-May 6.....	32		
Total for State.....		418	1	
Montana:				
Counties—				
Beaverhead.....	Jan. 1-Mar. 31....	5		
Carbon.....	Mar. 1-31.....	1		
Cascade.....	Dec. 1-Mar. 31....	25		
Chouteau.....	Jan. 1-Feb. 28....	8		
Custer.....	Dec. 1-Jan. 31....	2		
Dawson.....	Nov. 1-Mar. 31....	10		
Deer Lodge.....	do.....	18		
Gallatin.....	Feb. 1-28.....	1	1	
Jefferson.....	do.....	1		
Lewis and Clark.....	Feb. 1-Mar. 31....	2		
Missoula.....	Jan. 1-31.....	2		
Powell.....	do.....	1		

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received from Dec. 31, 1910, to June 9, 1911.

Places.	Date.	Cases.	Deaths.	Remarks.
Montana—Continued.				
Counties—Continued.				
Revalli.....	Dec. 1-Mar. 31....	12		
Silver Bow, exclusive of Butte.....	Nov. 1-Mar. 31....	33		
Butte.....	.....do.....	74		
Teton.....	Jan. 1-Mar. 31....	16		
Total for State.....		211	1	
•Nebraska:				
Counties—				
Lincoln.....	Dec. 1-Jan. 31....	31		
Omaha.....	Apr. 1-May 27....	51		
South Omaha.....	Jan. 1-May 13....	24		
Total for State.....		106		
New Jersey:				
Counties—				
Bergen.....	Dec. 1-Mar. 31....	3		
Camden.....	Mar. 1-31.....	1		
Middlesex.....	Jan. 1-31.....	1		
Salem.....	Jan. 1-Feb. 28....	27		
Total for State.....		32		
New York:				
Counties—				
Allegany.....	Nov. 1-30.....	1		
Chautauqua.....	Jan. 1-31.....	4		
Columbia.....	.....do.....	1		
Erie.....	Mar. 1-Apr. 30....	8		
New York.....	Mar. 1-31.....	1		
Niagara.....	Dec. 1-Apr. 30....	3		
Onondaga.....	Jan. 1-31.....	1		
St. Lawrence.....	Feb. 1-Mar. 31....	5		
Steuben.....	Feb. 1-28.....	1		
Tioga.....	Dec. 1-31.....	1		
Tompkins.....	Nov. 1-30.....	1		
Total for State.....		27		
North Carolina:				
Counties—				
Alamance.....	Jan. 1-Apr. 30....	20		
Beaufort.....	Dec. 1-Mar. 31....	43		
Bertie.....	Jan. 1-Feb. 28....	2		
Bladen.....	Nov. 1-Mar. 31....	125		Present in April.
Brunswick.....	Dec. 1-Mar. 31....	56		Present in Feb. and Apr.
Burke.....	Jan. 1-Mar. 31....	5		
Carteret.....	Nov. 1-Jan. 31....	4		
Caswell.....	Jan. 1-31.....	9		
Catawba.....	Apr. 1-30.....	1		
Chatham.....	Dec. 1-Apr. 30....	82		
Cherokee.....	Feb. 1-28.....	15		
Cleveland.....	Jan. 1-31.....			Present.
Columbus.....	Nov. 1-Apr. 30....	81		
Craven.....	Jan. 1-Mar. 31....	13		
Cumberland.....	Nov. 1-Apr. 30....	70		
Currituck.....	Jan. 1-31.....	2		
Duplin.....	Dec. 1-Apr. 30....	62		
Durham.....	Nov. 1-Apr. 30....	570		
Edgecombe.....	Nov. 4-Jan. 31....	7		
Forsyth.....	Mar. 1-31.....	3		
Franklin.....	Nov. 1-Apr. 30....	15		
Granville.....	Dec. 1-Feb. 28....	28		
Guilford.....	Mar. 1-Apr. 30....	37		
Halifax.....	Mar. 1-31.....	1		
Harnett.....	Mar. 1-Apr. 30....	63		
Haywood.....	Apr. 1-30.....	4		
Henderson.....	Dec. 1-Apr. 30....	39		
Hertford.....	Dec. 1-31.....	1		
Iredell.....	Mar. 1-31.....	4		
Jackson.....	.....do.....	4		
Johnston.....	Dec. 1-Apr. 30....	11		Present in January.
Jones.....	Jan. 1-Mar. 31....	14		
Lee.....	Dec. 1-Apr. 30....	12		
Lenoir.....	Jan. 1-31.....	2		
Martin.....	Nov. 1-Dec. 31....	17		
Mecklenburg.....	Jan. 1-Feb. 28....	7		
Nash.....	Nov. 1-Apr. 30....	7		

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received from Dec. 31, 1910, to June 9, 1911.

Places.	Date.	Cases.	Deaths.	Remarks.
North Carolina—Continued.				
Counties—Continued.				
New Hanover.....	Nov. 1-Apr. 30....	733		
Northampton.....	Jan. 1-Mar. 31....	21		
Onslow.....	Dec. 1-Apr. 30....	90		
Orange.....	Jan. 1-31.....	12		Present in February.
Pasquotank.....	Nov. 1-Apr. 30....	9		
Pender.....	Nov. 1-Jan. 31....	127		Present February, March, and April.
Person.....	Jan. 1-Feb. 28....	2		
Pitt.....	Nov. 1-Feb. 28....	34		
Robeson.....	Nov. 1-Apr. 30....	240		Present in February.
Rockingham.....	Apr. 1-30.....	1		
Rowan.....	Dec. 1-Feb. 28....	5		
Rutherford.....	Feb. 1-28.....	1		
Sampson.....	Dec. 1-Feb. 28....	33		Present in March.
Scotland.....	Feb. 1-28.....	6		Present in April.
Stokes.....	Apr. 1-30.....	2		
Surry.....	do.....	11		
Union.....	Nov. 1-Apr. 30....	13		
Vance.....	Jan. 1-Apr. 30....	35		
Wake.....	Nov. 1-Mar. 31....	61		
Washington.....	Jan. 1-31.....	2		
Watauga.....	Feb. 1-28.....	1		
Wayne.....	Dec. 1-Feb. 28....	14		
Wilkes.....	Jan. 1-Apr. 30....	8		
Total for State.....		2,897		
North Dakota:				
Counties—				
Billings.....	Jan. 1-Mar. 31....	27		
Cass.....	Dec. 1-31.....	1		
Grand Forks.....	Jan. 1-31.....	1		
Lamoure.....	Feb. 1-28.....	6		
McIntosh.....	Jan. 1-Feb. 28....	2		
Morton.....	Dec. 1-31.....	1		
Nelson.....	Mar. 1-31.....	1		
Ramsey.....	Jan. 1-31.....	1		
Steele.....	Dec. 1-Jan. 31....	19		
Stutsman.....	Jan. 1-Feb. 28....	17		
Wells.....	Mar. 1-31.....	1		
Total for State.....		77		
Ohio:				
Counties—				
Adams.....	Apr. 1-30.....	25		
Ashland.....	Jan. 1-Apr. 30....	3		
Butler.....	Mar. 1-31.....	1		
Clark.....	Jan. 1-Apr. 30....	60	1	
Cuyahoga.....	Mar. 1-Apr. 30....	5		
Darke.....	do.....	17		
Delaware.....	Feb. 1-Mar. 31....	2		
Franklin.....	Dec. 1-Apr. 30....	14		
Fulton.....	Jan. 1-31.....	4		
Hardin.....	Apr. 1-30.....	1		
Hamilton.....	Dec. 1-Apr. 30....	21		
Lorain.....	Dec. 1-31.....	2		
Lucas.....	Mar. 1-Apr. 30....	7		
Marion.....	do.....	71		
Miami.....	Feb. 1-28.....	1		
Monroe.....	Mar. 1-31.....	1		
Montgomery.....	Jan. 1-Feb. 28....	2		
Portage.....	Dec. 1-31.....	1		
Ross.....	Jan. 1-31.....	1		
Scioto.....	Mar. 1-Apr. 30....	8		
Williams.....	Jan. 1-Mar. 31....	4		
Wood.....	Mar. 1-Apr. 30....	4		
Total for State.....		255	1	
Oklahoma:				
Counties—				
Adair.....	Nov. 1-30.....	1		
Atoka.....	Dec. 1-Feb. 28....	2		
Beckham.....	Nov. 1-Mar. 31....	80		
Blaine.....	Nov. 1-Feb. 28....	19		
Bryan.....	Nov. 1-Mar. 31....	28		
Caddo.....	do.....	30		
Canadian.....	Nov. 1-Jan. 31....	34		
Carter.....	Mar. 1-31.....	3		

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received from Dec. 31, 1910, to June 9, 1911.

Places.	Date.	Cases.	Deaths.	Remarks.
Oklahoma—Continued.				
Counties—Continued.				
Cherokee.....	Jan. 1-Feb. 28.....	4	.....
Choctaw.....	Jan. 1-Mar. 31.....	24	.....
Cleveland.....	Feb. 1-Mar. 31.....	13	.....
Coal.....	Feb. 1-28.....	20	1	
Comanche.....	Jan. 1-Mar. 31.....	8	.....
Creek.....	Mar. 1-31.....	28	.....
Custer.....	Dec. 1-Jan. 31.....	9	.....
Garfield.....	Dec. 1-Feb. 28.....	2	.....
Grady.....	Nov. 1-Feb. 28.....	7	1	
Green.....	Nov. 1-30.....	1	.....
Hughes.....	Nov. 1-Mar. 31.....	62	.....
Jackson.....	Jan. 1-Mar. 31.....	71	.....
Johnston.....	Jan. 1-31.....	1	.....
Kay.....	Dec. 1-31.....	1	.....
Kingfisher.....	Feb. 1-Mar. 31.....	3	.....
Kiowa.....	.....do.....	3	.....
Latimer.....	Dec. 1-31.....	1	.....
Le Flore.....	Mar. 1-31.....	2	.....
Lincoln.....	Jan. 1-Mar. 31.....	71	.....
McClain.....	Mar. 1-31.....	4	.....
McCurtain.....	Jan. 1-Mar. 31.....	43	.....
McIntosh.....	Nov. 1-Dec. 31.....	12	.....
Major.....	Dec. 1-31.....	4	.....
Marshall.....	Nov. 1-Mar. 31.....	12	.....
Muskogee.....	Feb. 1-28.....	1	.....
Noble.....	Mar. 1-31.....	2	.....
Nowata.....	Jan. 1-Mar. 31.....	12	.....
Okfuskee.....	.....do.....	12	.....
Oklahoma.....	Dec. 1-Mar. 31.....	24	.....
Okmulgee.....	Jan. 1-Mar. 31.....	25	.....
Osage.....	Dec. 1-Jan. 31.....	3	.....
Payne.....	Feb. 1-Mar. 31.....	6	.....
Pittsburg.....	Dec. 1-Feb. 28.....	4	.....
Pontotoc.....	Jan. 1-Mar. 31.....	8	.....
Pottawatomie.....	Jan. 1-31.....	6	.....
Roger Mills.....	Mar. 1-31.....	1	.....
Seminole.....	Dec. 1-Jan. 31.....	9	.....
Stephens.....	Dec. 1-31.....	1	.....
Tulsa.....	Nov. 1-Mar. 31.....	10	.....
Washington.....	Dec. 1-Feb. 28.....	2	.....
Washita.....	Nov. 1-Mar. 31.....	18	.....
Woods.....	Dec. 1-Jan. 31.....	11	.....
Total for State.....		758	2	
Oregon:				
Counties—				
Baker.....	Jan. 1-31.....	2	.....
Benton.....	Dec. 1-Mar. 31.....	2	.....
Columbia.....	Jan. 1-31.....	1	.....
Marion.....	Dec. 1-Feb. 28.....	10	4	
Multnomah.....	Oct. 1-Nov. 30.....	8	.....
Polk.....	Nov. 1-30.....	1	.....
Umatilla.....	Dec. 1-31.....	1	.....
Union.....	Jan. 1-31.....	1	.....
Total for State.....		26	4	
Pennsylvania, entire State.....				
	Oct. 1-31.....			No cases.
	Nov. 1-Mar. 31.....	31	1	
Rhode Island:				
Providence.....	May 21-27.....	1	.....
*South Carolina:				
Camden.....	Jan. 15-21.....	1	.....
Charleston.....	Feb. 1-Apr. 30.....	10	.....
Seven Mile.....	Mar. 1.....	9	1	
Total for State.....		20	1	
*Tennessee:				
Counties—				
Davidson—				
Nashville.....	Jan. 8-Mar. 18.....	6	.....
Hamilton—				
Chattanooga.....	Jan. 1-May 22.....	11	1	
Knox—				
Knoxville.....	Jan. 22-May 27.....	87	.....
Shelby.....	Nov. 1-Apr. 30.....	402	3	
Total for State.....		506	4	

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received from Dec. 31, 1910, to June 9, 1911.

Places.	Date.	Cases.	Deaths.	Remarks.
Texas	Feb. 1-28.....		3	Reported out of date.
Counties—				
Bell.....	do.....	1		
Bowie.....	Mar. 1-31.....	4		
Cameron.....	Nov. 1-Apr. 30.....	141		
Cherokee.....	Jan. 1-Apr. 30.....	5		
Clay.....	Apr. 1-30.....	1		
Collin.....	Jan. 1-Apr. 30.....	34		
Dallas.....	Dec. 1-Apr. 30.....	39		
Denton.....	Mar. 1-Apr. 30.....	3		
Dewitt.....	Feb. 1-28.....	4		
El Paso.....	Jan. 1-Feb. 28.....	48	3	
Falls.....	Mar. 1-31.....	12		
Grimes.....	Nov. 1-30.....	4		
Guadalupe.....	Jan. 1-31.....	5	2	
Hall.....	Apr. 1-30.....	13		
Harrison.....	Mar. 1-31.....	5		
Henderson.....	Nov. 1-Apr. 30.....	23		
Hidalgo.....	Dec. 1-Apr. 30.....	8		
Houston.....	Mar. 1-31.....	2		
Jones.....	Jan. 1-31.....	3		
Lamar.....	Mar. 1-Apr. 30.....	11		
Lampasas.....	Apr. 1-30.....	1		
McLennan.....	Nov. 1-Apr. 30.....	27		
Marion.....	Dec. 1-Apr. 30.....	44		
Matagorda.....	Jan. 1-31.....	5		
Mitchell.....	Mar. 1-31.....	1		
Nueces.....	Jan. 1-Apr. 30.....	8		
Orange.....	Jan. 1-Feb. 28.....	9		
Palo Pinto.....	Mar. 1-31.....	1		
Red River.....	do.....	1		
Refugio.....	Mar. 1-Apr. 30.....	3		
Runnels.....	Jan. 1-31.....	1		
Swisher.....	Dec. 1-31.....	2		
Tarrant.....	Dec. 1-Apr. 30.....	16		
Taylor.....	Jan. 1-31.....	1		
Titus.....	Apr. 1-30.....	1		
Upshur.....	Mar. 1-Apr. 30.....	9		
Uvalde.....	Jan. 1-31.....	1		
Van Zant.....	Nov. 1-Feb. 28.....	9	1	
Wichita.....	Mar. 1-Apr. 30.....	28		
Williamson.....	Apr. 1-30.....	1	1	
Total for State.....		535	10	
Utah:				
Counties—				
Beaver.....	Nov. 1-Apr. 30.....	148	1	
Boxelder.....	Jan. 1-Apr. 30.....	71		
Cache.....	Nov. 1-Apr. 30.....	73	1	
Davis.....	Dec. 1-Apr. 30.....	14		
Garfield.....	Mar. 1-Apr. 30.....	14		
Iron.....	Nov. 1-Feb. 28.....	83		
Juab.....	Nov. 1-Mar. 31.....	13		
Millard.....	Nov. 1-Feb. 28.....	50		
Miute.....	Jan. 1-31.....	14		
Rich.....	Feb. 1-28.....	13		
Salt Lake.....	Nov. 1-Apr. 30.....	95		
Sanpete.....	Dec. 1-Apr. 30.....	58		
Sevier.....	Dec. 1-Apr. 30.....	69		
Tooele.....	Apr. 1-30.....	60		
Utah.....	Jan. 1-Apr. 30.....	86		
Washington.....	Nov. 1-Apr. 30.....	66		
Weber.....	do.....	108	1	
Total for State.....		1,035	3	
Vermont	Jan. 1-May 26.....			No cases.
Virginia:				
Counties—				
Appomattox.....	Jan. 1-31.....	3		
Alexandria.....	do.....	5		
Culpeper.....	Jan. 1-Feb. 28.....	4		
Dinwiddie.....	Jan. 1-31.....	1		
Fairfax.....	Jan. 1-Feb. 28.....	3		
Fauquier.....	do.....	42		
Frederick.....	Jan. 1-31.....	4		
Lee.....	Jan. 1-Feb. 28.....	270		
Loudoun.....	do.....	7		
Lunenburg.....	Jan. 1-31.....	8		
Nansemond.....	do.....	4		

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received from Dec. 31, 1910, to June 9, 1911.

Places.	Date.	Cases.	Deaths.	Remarks.
Virginia—Continued.				
Counties—Continued.				
Prince William.....	Feb. 1-28.....	2		
Roanoke.....	Jan. 1-31.....	1		
Southampton.....	do.....	1		
Stafford.....	do.....	10		
Wise.....	do.....	7		
Total for State.....		372		
Washington:				
Counties—				
Chehalis.....	Mar. 1-31.....	3		
Chelan.....	Jan. 1-Mar. 31.....	2		
Clallam.....	do.....	34		
Ferry.....	Jan. 1-31.....	1		
King.....	Dec. 1-Mar. 31.....	139	2	
Lewis.....	Mar. 1-31.....	2		
Lincoln.....	Feb. 1-Mar. 31.....	2		
Pacific.....	Jan. 1-31.....	1		
Pierce.....	Dec. 1-Mar. 31.....	49		
Skagit.....	Nov. 1-Mar. 31.....	111		
Snohomish.....	Dec. 1-Jan. 31.....	10		
Spokane.....	Nov. 1-Mar. 31.....	5		
Stevens.....	Dec. 1-Feb. 28.....	2		
Thurston.....	Mar. 1-31.....	1		
Walla Walla.....	Jan. 1-Mar. 31.....	2		
Whatcom.....	do.....	67		
Yakima.....	do.....	11		
Total for State.....		442	2	
Wisconsin:				
Counties—				
Ashland.....	Jan. 1-Feb. 28.....	6		
Barron.....	Jan. 1-Apr. 30.....	6		
Bayfield.....	Apr. 1-30.....	2		
Buffalo.....	Feb. 1-28.....	1		
Chippewa.....	Dec. 1-Mar. 31.....	12		
Clark.....	Apr. 1-30.....	1		
Dane.....	Jan. 1-Apr. 30.....	3		
Douglas.....	Feb. 1-Apr. 30.....	12		
Dunn.....	Dec. 1-Mar. 31.....	18		
Eau Claire.....	Feb. 1-28.....	4		
Green.....	Jan. 1-31.....	2		
Iowa.....	Dec. 1-Apr. 30.....	80		
Iron.....	Mar. 1-31.....	1		
Jefferson.....	Dec. 1-Jan. 31.....	10		
Lafayette.....	Dec. 1-Feb. 28.....	11		
La Crosse.....	Dec. 1-Apr. 30.....	13		
Lincoln.....	Feb. 1-Mar. 31.....	2		
Milwaukee.....	Dec. 1-Apr. 30.....	12		
Monroe.....	Mar. 1-Apr. 30.....	3		
Oneida.....	Dec. 1-Apr. 30.....	12		
Pierce.....	Feb. 1-28.....	1		
Price.....	Mar. 1-Apr. 30.....	3		
Rusk.....	do.....	5		
Sheboygan.....	Mar. 1-31.....	1		
St. Croix.....	Dec. 1-Feb. 28.....	7		
Vernon.....	Jan. 1-Feb. 28.....	10		
Vilas.....	Dec. 1-31.....	1		
Walworth.....	Jan. 1-31.....	1		
Washington.....	Dec. 1-31.....	1		
Total for State.....		241		
Grand total for the United States.....		14,659	54	

CHOLERA IN THE UNITED STATES.

Place.	Date.	Cases.	Deaths.	Remarks.
New York:				
New York.....	June 14.....	1		Removed at quarantine from s. s. Europa from Naples.

MORBIDITY AND MORTALITY.

MORBIDITY AND MORTALITY TABLE, CITIES OF THE UNITED STATES, FOR WEEK ENDED MAY 27, 1911.

Cities.	Popula- tion, United States census 1910.	Total deaths from all causes.	Diph- theria		Measles.		Scarlet fever.		Small- pox.		Tuber- culosis.		Ty- phoid fever.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Cities having over 500,000 inhabitants.														
Baltimore, Md.	558,485	192	8	1	93	1	15	1			31	19	8	1
Boston, Mass.	670,585	238	42	1	171	2	56	1			49	24	6	2
Chicago, Ill.	2,185,283	608	135	21	286	7	204	15	4		165	68	23	3
Cleveland, Ohio.	560,663		22		58	5	98	7			22	22	5	1
New York, N. Y.	4,766,883	1,406	309	41	1,446	26	479	25			547	152	39	6
Philadelphia, Pa.	1,549,008	505	60	3	284	11	63	1			93	56	15	1
Pittsburg, Pa.	533,905	135	12	1	88	1	20				39	14	9	1
St. Louis, Mo.	687,029	204	35	3	152	2	69	11	10		37	20	4	
Cities having from 300,000 to 500,000 inhabitants.														
Cincinnati, Ohio.	364,463		11		29		74	2	4		22	21	1	1
Milwaukee, Wis.	373,857	105	7		36	3	20	2	1		22	12	9	2
Newark, N. J.	347,469	103	11				20	2			14	19	5	
New Orleans, La.	339,075	141	6		69	1	3		3		29	21	13	
San Francisco, Cal.	416,912	132	4		57	1	11		1		19	20	4	1
Washington, D. C.	331,069	113	5		327	1	6		1		23	16	10	1
Cities having from 200,000 to 300,000 inhabitants.														
Jersey City, N. J.	267,779	66		1			1				5			
Kansas City, Mo.	248,381	62	2	1	10		7		10		5	6	3	1
Providence, R. I.	224,326	56	8		4		7		1		8	7	1	1
Seattle, Wash.	237,194	46	3		97		8		3		5	7	5	
Cities having from 100,000 to 200,000 inhabitants.														
Bridgeport, Conn.	102,054	19	3		36		5				4	3	1	
Cambridge, Mass.	104,839	38	6		27		4				11	3	1	
Columbus, Ohio.	181,548	51	2		28		2		1		9	4	3	1
Dayton, Ohio.	116,577	16			11								2	
Fall River, Mass.	119,295	28	2		21		1				3	3		
Grand Rapids, Mich.	112,571	28	1		11	1	3				1	3	1	1
Lowell, Mass.	106,294	49			6						7	3	2	
Memphis, Tenn.	131,105		1		5		1		1		3	7	1	1
Nashville, Tenn.	110,364	45			1		3				4	5	4	
Oakland, Cal.	150,174	29			26	1	4				1	3		1
Omaha, Nebr.	124,096		3		6		3		7			4	2	1
Richmond, Va.	127,628	42	2		26		1				12	6	3	
Toledo, Ohio.	168,497	46	6	2	2		6	1			7	7	1	
Worcester, Mass.	145,986	37	10		15		18	2			4	3		
Cities having from 50,000 to 100,000 inhabitants.														
Altoona, Pa.	52,127	10			2		1				1			
Bayonne, N. J.	55,545	11	1		17		4				1			
Brockton, Mass.	56,878	14	1		57		4				3	1		
Camden, N. J.	94,538		11	1	4		2				1			
Canton, Ohio.	50,217	8					4							
Des Moines, Iowa.	86,368		1						4					
Duluth, Minn.	78,466	24	1		50		5				2	2		
Elizabeth, N. J.	73,409	19	1	1	2		14	1			2	2		
Evansville, Ind.	69,647	17			36	1			3		3			
Fort Wayne, Ind.	63,933	21	4		12		1					2		
Harrisburg, Pa.	64,186	16	2		13		1				6	1	1	
Hartford, Conn.	98,915	31	6	1	5		10				3	1		
Hoboken, N. J.	70,324		5		10		2							
Jacksonville, Fla.	57,699	29			7		5		18		8	4	1	
Johnstown, Pa.	55,482	21			21		1	1			1			
Lawrence, Mass.	85,892	30			8		1				4	5	1	
Lynn, Mass.	89,336		14		6		1				6	2		
Manchester, N. H.	70,063	36			7		1		2		3	3		
New Bedford, Mass.	96,652	26			2						7		1	2
Oklahoma City, Okla.	64,205	25			7		1	1			2	2	2	2

MORBIDITY AND MORTALITY—Continued.

Continued.

Cities.	Popula- tion, United States census 1910.	Total deaths from all causes.	Diph- theria.		Measles.		Scarlet fever.		Small- pox.		Tuber- culosis.		Ty- phoid fever.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Cities having from 50,000 to 100,000 inhabitants—Continued.														
Passaic, N. J.	54,773	18	4		15	1	1					2		
Portland, Me.	58,571	19				1	2					3	2	
Reading, Pa.	96,071	29	1	1	10		8				1		3	
San Antonio, Tex.	96,614	46	1		2							5	4	2
Schenectady, N. Y.	72,826	17			3		3				9	2		
Somerville, Mass.	77,226		1		1		1							
South Bend, Ind.	53,684	15	2		5		5	2					3	
Springfield, Ill.	51,678	16					2		1					
Springfield, Mass.	88,926	26	3		23		4				9	3		
Tacoma, Wash.	83,743		1				2							
Trenton, N. J.	96,815	34	3				2				7	4	4	
Waterbury, Conn.	73,141		4		3		8				2	1		
Wichita, Kans.	52,450	12			11						1		2	
Wilkes-Barre, Pa.	67,105	14	2		7						5			
Wilmington, Del.	87,411	24			7							2		
Yonkers, N. Y.	79,803	23	3		55		16	1			8	4		
Cities having from 25,000 to 50,000 inhabitants.														
Atlantic City, N. J.	46,150	11			2		1							
Aurora, Ill.	29,807		1				1							
Bay City, Mich.	45,166		4		4		9				1		1	
Berkeley, Cal.	40,434	11			5							1		
Binghamton, N. Y.	48,443	17					3				3	3		
Brookline, Mass.	27,792	8	1		9		1							
Chelsea, Mass.	32,452	14	2		9		6				1	1	1	
Danville, Ill.	27,871	6			1				3					
Dubuque, Iowa.	38,494	11												
East Orange, N. J.	34,371	7	2		2		1				3		1	
Elmira, N. Y.	37,176	7	7		31							1		1
Everett, Mass.	33,484	11	1		10		1				6			
Haverhill, Mass.	44,115		2		3		1				5			
Kalamazoo, Mich.	39,437	12			1						3	1	1	
Knoxville, Tenn.	36,346	13						12						
La Crosse, Wis.	30,417	12			1		3	1				2		
Lancaster, Pa.	47,227	18	2	1	7		1					2	1	1
Lexington, Ky.	35,099	23			1		1				2	2		
Lima, Ohio.	30,508	6			1		2				1			
Lynchburg, Va.	29,494	5			31				1				1	
Malden, Mass.	44,404	8	1		35		2				2			
McKeesport, Pa.	42,694	11	2				2				1		1	
Montgomery, Ala.	38,136	16			2		1		1		1		2	1
Mount Vernon, N. Y.	30,919	0	1		1		4							
New Britain, Conn.	43,916	5	3		1						3			
New Castle, Pa.	36,280		1				2					2		
Newport, Ky.	30,309	12	1	1			5					2		
Newton, Mass.	39,806	9			20		2				3			
Niagara Falls, N. Y.	30,445	18	1		4	1						1	5	3
Norristown, Pa.	27,875	10	2	1	6						1	1	1	
Pasadena, Cal.	30,291	14			2						1	2		
Pittsfield, Mass.	32,121	9	1								1			
Portsmouth, Va.	33,190	14			6		1		1					
Poughkeepsie, N. Y.	27,936	8			12		3				1			
Roanoke, Va.	34,874	11	1		14		2				4	4		
Rockford, Ill.	45,401				150		9		1				2	
San Diego, Cal.	39,578	18			3							3	3	1
Shenandoah, Pa.	25,774	11		1										
Superior, Wis.	40,384	10	2	1			3					1		
Taunton, Mass.	34,259	11									1		1	
Waltham, Mass.	27,834	9	1		6									
West Hoboken, N. J.	35,403	9	5				2					1		
Williamsport, Pa.	31,860	5			6							1		
Zanesville, Ohio.	28,026	7											1	

MORBIDITY AND MORTALITY—Continued.

Morbidity and mortality table, cities of the United States, for week ended May 27, 1911—Continued.

Cities.	Popula- tion, United States census 1910.	Total deaths from all causes.	Diph- theria.		Measles.		Scarlet fever.		Small- pox.		Tuber- culosis.		Ty- phoid fever.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
<i>Cities having less than 25,000 inhabitants.</i>														
Ann Arbor, Mich.	14,817	5	—	—	2	—	—	—	—	—	6	1	1	—
Beaver Falls, Pa.	12,191	0	—	—	2	—	—	—	—	—	—	—	—	—
Braddock, Pa.	19,357	10	2	—	11	—	—	—	—	—	—	—	—	—
Butler, Pa.	29,728	5	—	—	1	—	—	—	—	—	—	—	—	1
Cambridge, Ohio.	11,327	0	—	—	—	—	—	—	—	—	—	—	—	—
Camden, S. C.	—	1	—	—	—	—	1	—	—	—	—	1	—	—
Carbondale, Pa.	17,040	9	—	—	—	—	1	2	—	—	—	—	—	—
Clinton, Mass.	13,075	0	—	—	—	—	—	—	—	—	1	—	—	—
Coffeyville, Kans.	12,687	4	—	—	—	—	—	—	—	—	1	—	2	—
Columbus, Ga.	—	4	—	—	—	—	—	—	—	—	—	1	—	—
Columbus, Ind.	—	1	—	—	—	—	—	—	2	—	—	—	—	—
Concord, N. H.	21,497	4	—	—	2	—	—	—	—	—	—	1	—	—
Cumberland, Md.	21,839	4	—	—	1	—	—	—	—	—	—	—	1	—
Dunkirk, N. Y.	—	5	—	—	—	—	—	—	—	—	—	1	1	—
Galesburg, Ill.	20,089	2	—	—	—	—	—	—	—	—	—	—	—	—
Gloucester, Mass.	24,398	8	—	—	—	—	—	—	—	—	—	1	—	—
Harrison, N. J.	14,498	3	1	—	—	—	—	—	—	—	—	—	1	—
Hyde Park, Mass.	15,507	2	1	—	—	—	—	—	—	—	—	—	—	—
Kearny, N. J.	18,659	4	1	—	—	—	—	—	—	—	1	—	—	—
La Fayette, Ind.	12,081	2	—	—	1	—	1	—	—	—	—	—	—	—
Lebanon, Pa.	19,240	7	—	—	—	—	—	—	—	—	—	—	—	—
Manistee, Mich.	12,381	—	—	—	—	—	1	—	—	—	—	—	—	—
Marinette, Wis.	14,610	2	—	—	—	—	—	—	—	—	—	—	3	1
Marlboro, Mass.	14,579	6	—	—	—	—	—	—	—	—	—	1	1	—
Massillon, Ohio.	13,879	—	—	—	1	—	—	—	—	—	—	—	—	—
Medford, Mass.	23,150	4	1	—	3	—	1	—	—	—	1	—	—	—
Melrose, Mass.	15,715	5	—	—	4	—	—	—	—	—	1	—	—	—
Moline, Ill.	24,199	8	—	—	7	—	3	—	—	—	—	2	2	—
Montclair, N. J.	21,550	6	—	—	1	—	—	—	—	—	—	—	—	—
Nanticoke, Pa.	18,877	2	1	1	—	—	—	—	—	—	—	—	—	—
Newburyport, Mass.	14,949	6	—	—	—	—	—	—	—	—	3	—	—	1
North Adams, Mass.	22,019	2	—	—	1	—	—	—	—	—	2	—	—	—
Northampton, Mass.	19,431	4	3	—	1	—	5	—	—	—	—	—	—	—
Palmer, Mass.	—	2	—	—	—	—	—	—	—	—	—	—	—	—
Palo Alto, Cal.	4,486	0	—	—	—	—	—	—	—	—	—	—	—	—
Peekskill, N. Y.	—	3	—	—	12	—	—	—	—	—	2	—	—	—
Plainfield, N. J.	20,550	5	1	—	—	—	—	—	—	—	4	4	—	—
Pottstown, Pa.	—	4	—	—	1	—	1	—	—	—	—	2	—	—
Sandusky, Ohio.	—	3	—	—	—	—	—	—	—	—	—	—	1	—
Saratoga Springs, N. Y.	—	4	—	—	—	—	—	—	—	—	2	1	—	—
South Bethlehem, Pa.	19,973	5	2	1	1	—	—	—	—	—	2	—	—	—
Steelton, Pa.	14,246	3	2	—	3	—	—	—	—	—	2	—	—	—
Warren, Ohio.	11,080	0	—	—	—	—	—	—	—	—	—	—	—	—
Wilksburg, Pa.	18,294	5	—	—	1	—	2	—	—	—	2	—	—	—
Woburn, Mass.	15,308	5	2	—	3	—	—	—	—	—	2	—	—	—

STATISTICAL REPORTS OF MORBIDITY AND MORTALITY, STATES AND CITIES OF THE UNITED STATES (untabulated).

ARKANSAS—Little Rock.—Month of May, 1911. Population, 45,941. Total number of deaths from all causes not reported. Cases reported: Diphtheria 1, measles 2, scarlet fever 3, smallpox 4, typhoid fever 3.

COLORADO.—Three months ended March 31, 1911. Population, 799,024. Total number of deaths from all causes 3,210, including diphtheria 24, measles 63, scarlet fever 44, tuberculosis 537, typhoid fever 40. Cases reported: Diphtheria 258, measles 2,316, scarlet fever 669, smallpox 757, typhoid fever 116.

FLORIDA.—Week ended May 27, 1911. Reports from the State board of health show diphtheria present in one locality (Ocala) with 4 cases, malaria in 6 localities with 24 cases, smallpox in 11 counties with 92 cases, tuberculosis in 10 localities with 18 cases, typhoid fever in 4 localities with 9 cases.

IOWA.—Month of April, 1911. Population 2,224,771. Total number of deaths from all causes 1,898, including diphtheria 11, measles 27, scarlet fever 15, tuberculosis 144, typhoid fever 17.

MARYLAND.—Month of March, 1911. Population, 1,295,346. Total number of deaths from all causes 984, including diphtheria 11, measles 4, scarlet fever 1, tuberculosis 115, typhoid fever 20. Cases reported: Diphtheria 64, measles 429, scarlet fever 60, typhoid fever 44. The typhoid fever cases were distributed as follows: Potomac River watershed 19, Patapsco River watershed 8, Patuxent River watershed 1, Herring Run watershed 2.

NEW JERSEY.—Month of May, 1911. Population, 2,537,167. Total number of deaths from all causes 3,441, including diphtheria 51, measles 54, scarlet fever 29, tuberculosis 494, typhoid fever 18.

NEW YORK—*Rome*.—Month of May, 1911. Population, 20,497. Total number of deaths from all causes 32, including diphtheria 2, tuberculosis 11, typhoid fever 1. Cases reported: Diphtheria 15, measles 76, scarlet fever 64, tuberculosis 1.

NORTH DAKOTA.—Month of April, 1911. Population, 577,056. Total number of deaths from all causes 318, including scarlet fever 3, tuberculosis 5, typhoid fever 1. Cases reported: Diphtheria 55, measles 76, scarlet fever 48, smallpox 12, tuberculosis 21, typhoid fever 12.

OREGON.—Month of January, 1911. Population, 672,765. Total number of deaths from all causes 583, including diphtheria 6, measles 2, scarlet fever 5, tuberculosis 63, typhoid fever 8. Cases reported: Diphtheria 51, measles 431, scarlet fever 105, smallpox 5, tuberculosis 36, typhoid fever 45.

Month of February, 1911. Total number of deaths from all causes 531, including diphtheria 5, measles 1, scarlet fever 5, tuberculosis 48, typhoid fever 10. Cases reported: Diphtheria 35, measles 378, scarlet fever 105, smallpox 1, tuberculosis 25, typhoid fever 35.

Month of March, 1911. Total number of deaths from all causes 548, including diphtheria 4, measles 1, scarlet fever 8, tuberculosis 58, typhoid fever 4. Cases reported: Diphtheria 35, measles 353, scarlet fever 108, smallpox 2, tuberculosis 28, typhoid fever 29.

PENNSYLVANIA.—Morbidity: Month of April, 1911.

Reports from the State department of health show 14,482 cases of communicable diseases, distributed as follows: Anterior poliomye-

litis 10, cerebrospinal meningitis 15, chickenpox 733, diphtheria 958, erysipelas 220, German measles 48, malarial fever 5, measles 6,807, mumps 748, pneumonia 795, puerperal fever 13, scarlet fever 1,127, smallpox 13, tetanus 4, trachoma 22, tuberculosis 1,200, typhoid fever 523, whooping cough 1,241.

SOUTH CAROLINA—*Charleston*.—Month of May, 1911. Population, 58,833. Total number of deaths from all causes 144, including tuberculosis 18, typhoid fever 2. Cases reported: Scarlet fever 1.

FOREIGN AND INSULAR.

RECENT REPORTS OF CHOLERA.

With the onset of summer, cholera is again being reported from certain localities in Europe and occasional cases are being reported on vessels.

June 7 a cablegram was received from the American vice consul at Trieste, Austria, that a fatal case of cholera had occurred on the steamship *Sazonia*, which arrived at Trieste June 5, bound from New York by way of Genoa and Naples.

In Italy two deaths from cholera were reported June 8 at Reggio di Calabria and on June 14 one case at Lungro and two cases at Serrastretta, all in the extreme southern part of the country.

June 13 Dr. Doty, quarantine officer of the port of New York, reported that a steerage passenger from southern Italy, who had embarked at Naples June 2, on the steamship *Berlin*, had been taken ill June 6 and died 30 hours later of symptoms typical of cholera, as stated by the ship surgeon. The discharges from this patient were preserved and cultures forwarded by messenger to the Hygienic Laboratory at Washington, where the diagnosis of cholera was confirmed bacteriologically.

June 14 Dr. Doty further reported that the steamship *Europa*, from Naples, had arrived at New York that morning with a patient who had taken ill four days after leaving Naples. The patient was still ill and a clinical diagnosis of cholera made. The diagnosis of this case has also been confirmed bacteriologically at the Hygienic Laboratory from cultures forwarded by messenger from New York.

All necessary precautions to prevent the importation of the disease into the United States are being taken. Outgoing quarantine restrictions are being enforced at Naples. Steerage passengers are being held under observation for five days and baggage is being searched for foodstuffs, which when found are removed. The baggage is also being disinfected.

CHINA.

AMOY—Plague.

The American consul reports May 3 the increase of plague among Chinese in the vicinity of Amoy.

HONGKONG—Plague-infected Rat Found.

Surg. Brown reports May 2:

The sanitary board reported the finding of one plague-infected rat during the week ended April 29.

CUBA.

Transmissible Diseases.

The following statements of transmissible diseases in the island of Cuba were issued by the national department of sanitation:

APRIL 10-20, 1911.

Diseases.	New cases.	Deaths.	Under treatment.	Diseases.	New cases.	Deaths.	Under treatment.
Tuberculosis.....	69	84	2,488	Scarlet fever.....	14	1	19
Leprosy.....	1	1	353	Measles.....	200		310
Malaria.....	34	2	118	Varicella.....	35		66
Typhoid fever.....	19	7	53	Tetanus in the new born.	11	11	
Diphtheria.....	24	1	26				

APRIL 20-30, 1911.

Tuberculosis.....	55	85	2,456	Scarlet fever.....	10	2	15
Leprosy.....	1		354	Measles.....	164	2	305
Malaria.....	32	3	117	Varicella.....	48		71
Typhoid fever.....	21	1	60	Tetanus in the new born.	3	3	
Diphtheria.....	22	2	18				

GREAT BRITAIN.

Plague on Steamship at Glasgow.

The American ambassador at London reported June 9 to the Department of State the isolation in hospital at Glasgow, May 30, of a case of plague. The patient was a seaman from the steamship *City of Benares*. The case terminated fatally June 1, and was verified as plague. All precautions were taken and no fresh case has occurred.

The *City of Benares* left Kurrachee, India, April 8, for Liverpool, arriving at that port May 5 and sailing for Glasgow May 12.

GUIANA.

Georgetown—Smallpox.

Consul Clare reports May 20:

A case of smallpox occurred May 15 in this city. The patient has been isolated, all contacts have been vaccinated and are under observation, and the premises on which the case occurred have been fumigated:

HAWAII.

Record of Plague Infection.

The last case of human plague at Honolulu occurred July 12, 1910.

The last plague-infected rat was found at Aiea, 9 miles from Honolulu, April 12, 1910.

At Hilo the last case of human plague occurred March 23, 1910. A fatal case occurred at Honokaa, 60 miles from Hilo, December 17, 1910; 2 fatal cases were reported January 31, 1911, and 1 fatal case was reported April 19.

The last plague-infected rat was found at Honokaa February 2, 1911.

Chief Quarantine Officer Ramus reports May 22:

HONOLULU.

Week ended May 20, 1911.

Total rats and mongooses taken.....	899
Rats trapped.....	881
Mongooses trapped.....	18
Examined bacteriologically.....	751
Classification of rats trapped:	
<i>Mus alexandrinus</i>	70
<i>Mus musculus</i>	334
<i>Mus norvegicus</i>	122
<i>Mus rattus</i>	355

INDIA.

CALCUTTA—Cholera, Plague, and Smallpox.

Acting Asst. Surg. Allan reports May 11:

During the week ended April 22 there were reported at Calcutta 80 deaths from cholera, 173 from plague, and 6 from smallpox; in all Bengal, 3,749 cases of plague with 3,205 deaths; in all India, 45,277 cases of plague with 39,241 deaths.

RANGOON—Comparative Statistics—Plague and Smallpox.

Consul Morehead reports May 1:

Mortality in Rangoon during the month of March, 1910 and 1911, was reported as follows:

Diseases.	Number of deaths.		Decrease or increase in 1911.
	March, 1910.	March, 1911.	
Smallpox.....	141	231	+90
Plague.....	91	101	+10
Cholera.....	4	10	+6
Other fevers.....	63	109	+46
Dysentery.....	71	58	-13
Respiratory.....	125	163	+38
All other causes.....	416	448	+32
Total.....	911	1,120	209

The death rate in March, 1911, was 46.44 per 1,000 of the population as compared with 43.35 in March, 1910.

The large majority of deaths from epidemic diseases occurred in the native quarters along the river, where the death rate ranged from 50 to 60 per 1,000. In the European business section the death rate was only 15 per 1,000 and in the European residential section 24.35 per 1,000.

Smallpox.—There were 613 cases of smallpox reported during March, 1911, as compared with 333 cases in the same month of last year, the deaths being 231 and 141, respectively. Smallpox was confined almost entirely to the native and Chinese quarters. There were only two deaths from this disease in the European residential section where the population were generally protected by vaccination and revaccination.

Bubonic plague.—During March, 1911, there were reported 107 cases of plague as compared with 104 in the same month of 1910. The deaths were 101 and 91, respectively, or 94.39 per cent of the cases in 1911 and 85.85 per cent in 1910. The Burmese and Hindu population suffered most heavily. During March, 1911, there were destroyed 34,935 rats.

Cases and deaths from the more prevalent diseases occurring in Rangoon during the months of January, February, and March, 1910 and 1911, are stated in the following table:

Diseases.	1910							1911						
	Jan.		Feb.		March.		Total deaths.	Jan.		Feb.		Mar.		Total deaths.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
Cholera.....	8	6	10	10	6	4	20	3	3	2	10	10	10	15
Plague.....	15	12	40	38	104	91	141	19	18	62	53	107	101	172
Smallpox.....	79	28	262	99	353	142	269	57	16	191	72	612	231	319
Malaria.....		13		19		8	40		29		21		15	65
Other fevers.....		47				55	102		41		61		93	195
Tuberculosis.....		27		21		22	70		38		23		30	91
Dysentery.....		70		74		71	215		90		78		58	226
Respiratory.....		113		129		125	367		136		155		163	454
Injuries.....		12		12		11	35		17		7		23	47
All other causes.....		481		384		382	1,247		392		412		396	1,190
Total.....		809		786			2,506		784		889		1,120	2,793

JAPAN.

Plague in Formosa.

Surg. Irwin at Yokohama reports May 15:

Information received from Formosa shows plague to be increasing in Kagi Province, about 6 new cases being reported daily with a total since May 6 of 140 cases. The disease has attacked only the aboriginal population.

JAVA.

Cholera and Plague.

Consul Rairden at Batavia reports May 1:

During the week ended April 29 cholera increased rapidly at Batavia, 45 cases being reported. The port of Batavia was officially declared infected with cholera April 25.

Plague has spread from Malang district to the district of Japara, which is situated about 100 miles east of the port of Samarang.

MEXICO.

Frontera—Smallpox.

Information received from the American consul June 12 shows smallpox present at Frontera with 2 cases. The cases have been isolated and placed under observation.

Mexico City—Typhus Fever.

Consul General Shanklin reports:

During the two weeks ended May 6 there were reported in Mexico City 203 cases of typhus fever with 59 deaths.

PERU.**Decree Relative to Entry and Shipment of Corpses.**

Consul General Robertson reports May 1:

Ministerial decree of April 22, 1911, modifying article 51 of the maritime sanitary regulations, prohibits the disembarkation of corpses from foreign countries unless the bodies are accompanied by a certificate signed by the Peruvian consul at the point of exportation stating that the exhuming or embalming and preservation of the bodies had been performed in accordance with the laws and regulations of the country in which the deaths took place. In no case will it be permitted to ship or disembark in Peruvian ports corpses that are not inclosed in a double coffin formed of one interior metallic case, hermetically sealed and impermeable to gases, and of an outer case of wood effectually protecting the integrity of the former.

Status of Plague.

The following statements of plague in Peru were issued by the director of public health:

Month of February, 1911.¹

[Corrections from previous report.]

Departments.	Cases remaining Jan. 31.	New cases.	Recovered.	Died.	Remaining Feb. 28.
La Libertad.....	18	73	8	30	53
Lambayeque.....	2	5	5	2	.....
Piura.....	7	26	6	14	12

Month of March, 1911.²

Departments.	Cases remaining Feb. 28.	New cases.	Recovered.	Died.	Remaining Mar. 31.
Ancash.....	12	.....	12	.....	.....
Arequipa.....	3	8	4	6	1
Callao.....	.....	1	.....	1	.....
Lambayeque.....	.....	24	7	10	7
La Libertad.....	53	60	49	13	51
Lima.....	9	8	7	5	5
Piura.....	12	2	10	1	3

¹ Public Health Reports, Apr. 28, 1911, p. 618.

² Public Health Reports, May 12, 1911, p. 702.

April 2-22, 1911.

Departments.	Cases remain- ing Mar. 31.	New cases.	Recov- ered.	Died.	Remain- ing. Apr. 22.
Lima.....	4	9	2	3	8
Callao.....	2	2	1	1	1
Trujillo.....	47	12	33	2	25
Islay.....	2	9	2	4	5
Chiclayo.....	10	3	7		7
Lambayeque.....	1	3			4
Pacasmayo.....	1	1	1	1	
Piura.....	4		4		

Acting Asst. Surg. Castro-Gutierrez at Callao reports, May 20:

At Salaverry the American consular agent reports, April 17, that no infectious disease was reported in the port during the period from April 1 to 15.

Reports from Mollendo show increase of plague. Cases were reported as follows: In January, 14; in February, 3; in March, 8; and from April 1 to 16 there were reported 10 cases.

Bills of health from ports south of Callao show as follows: At Mollendo (May 2), 6 cases with 2 deaths in previous two weeks; at Arica, Chile (May 1), plague present; at Iquique, Chile (April 30), 7 cases of plague with 5 deaths in previous two weeks; at Valparaiso, Chile (April 26), 55 cases of smallpox in previous two weeks.

RUSSIA.

Cholera.

Minister Rockhill at St. Petersburg reported May 16 to the Department of State:

Official information for the period from April 28 to May 3 shows the occurrence of a case of cholera in the government of Kherson and of a fatal case in the city of Novorossysk.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX.

Reports Received During Week Ended June 16, 1911.

[These tables include cases and deaths recorded in reports received by the Surgeon General, Public Health and Marine-Hospital Service, from American consuls, through the Department of State, and from other sources.]

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
India:				
Bassein.....	Apr. 16-22.....	2	2	
Moulmine.....	do.....	8	8	
Italy:				
Lungro.....	June 14.....	1		
Reggio.....	June 8.....		2	
Serrastretta.....	June 14.....	2		
Java:				
Batavia.....	Apr. 23-May 6.....	165	120	Including 13 Europeans
Russia:				
Kherson government.....	Apr. 28-May 3.....	1		
Novorossysk.....	do.....	1	1	
Siam:				
Bangkok.....	Mar. 16-Apr. 15.....	521	521	
Straits Settlements:				
Singapore.....	Apr. 16-29.....	2	2	
Turkey in Asia:				
Smyrna.....	Apr. 28-May 6.....	7	3	
At sea.....	June 8.....		1	On s. s. Berlin bound for New York from Naples.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received During Week Ended June 16, 1911.

YELLOW FEVER.

Place.	Date.	Cases.	Deaths.	Remarks.
Brazil:				
Pernambuco.....	Apr. 1-30.....		1	

PLAGUE.

Arabia:				
Maskat.....	May 7-13.....	5	5	
Brazil:				
Para.....	May 21-27.....		1	
Pernambuco.....	Apr. 1-30.....		1	
Rio de Janeiro.....	Mar. 6-May 6.....	8	2	
Chile:				
Arica.....	May 1.....			Present.
Iquique.....	Apr. 16-May 6.....	13	7	
China:				
Hongkong.....	Apr. 23-May 6.....	25	18	
Great Britain:				
Glasgow.....	May 30-June 1.....	1	1	From s. s. City of Benares from Kurrachee.
India:				
Bombay.....	May 1-13.....	525	608	
Kurrachee.....	do.....	566	530	
Japan:				
Formosa.....	Apr. 16-22.....	13	12	In Kagi province to May 6: Cases 140.
Java:				
Pasoroan Residency.....	Apr. 23-May 6.....	105	65	May 6, present in Japara and Surabaya.
Peru:				
Departments—				
Arequipa.....	Apr. 1-30.....	9	4	
Callao.....	Mar. 1-31.....	1	1	
	Apr. 1-30.....	2	1	
Chiclayo.....	do.....	3		
Lambayeque.....	Feb. 1-28.....	1		Not previously reported.
	Mar. 19-31.....	15	7	
	Apr. 1-30.....	3		
Libertad.....	Feb. 1-28.....		1	Do.
	Mar. 1-31.....	60	13	
	Apr. 1-30.....	12	2	
Lima.....	May 19-31.....	4	3	
	Apr. 1-30.....	9	3	
Pacasinayo.....	do.....	1	1	
Piura.....	Feb. 1-28.....	1		Do.
Straits Settlements:				
Singapore.....	Apr. 16-22.....	1	1	
Slam:				
Bangkok.....	Mar. 16-Apr. 15.....	33	29	
Turkey in Asia:				
Basra.....	May 7-13.....	2	2	

SMALLPOX.

Argentina:				
Buenos Aires.....	Mar. 1-31.....		9	
Austria-Hungary:				
Galicia.....	May 7-13.....	3		
Tarnobrzeg.....	do.....	1		
Trieste.....	do.....	1		
Brazil:				
Para.....	May 14-27.....	6	1	
Pernambuco.....	Mar. 15-Apr. 30.....		278	
Rio de Janeiro.....	Mar. 6-May 6.....	6	2	
Canada:				
Quebec.....	May 28-June 3.....	8		
Sydney.....	do.....	1		
Chile:				
Valparaiso.....	May 1-6.....	66		
China:				
Hongkong.....	Apr. 23-May 6.....	23	18	
Egypt:				
Cairo.....	May 1-13.....	4		
Port Said.....	do.....	16	13	

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received During Week Ended June 16, 1911.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
France:				
Paris.....	May 6-13.....	1	1	
Germany:				
Hamburg.....	May 14-20.....	2		Total for May 21-27: Cases 3.
Great Britain:				
London.....	May 14-27.....	18		
Guiana:				
Georgetown.....	May 15.....	1		
India:				
Bombay.....	May 1-13.....	60	40	
Madras.....	May 1-6.....	19	17	
Italy:				
Palermo.....	May 14-27.....	35	13	
Turin.....	Apr. 30-May 5.....	1		
Lourenco Marquez.....	Mar. 1-31.....	2		
Mexico:				
Chihuahua.....	May 8-21.....	3	1	
Ciudad Juarez.....	May 28-June 3.....	1		
Frontera.....				June 12: Cases 2.
Guadalajara.....	May 21-27.....		1	
Mexico.....	Apr. 23-May 6.....		38	
San Luis Potosi.....	May 13-20.....	11	5	
Tampico.....	May 20-30.....	8	1	
Portugal:				
Lisbon.....	May 14-20.....	15		
Russia:				
Libau.....	May 7-13.....	1		
Moscow.....	do.....	28	12	
Siam:				
Bangkok.....	Mar. 16-Apr 15.....	4	4	
South Africa:				
Capetown.....	Dec. 23-29.....	3		
Spain:				
Barcelona.....	May 17-26.....	1	1	
Straits Settlements:				
Penang.....	Apr. 16-22.....	1		
Singapore.....	Apr. 16-29.....	15	4	
Turkey in Asia:				
Beirut.....	May 7-20.....	5		
Harput.....	May 1-13.....	13	2	
Uruguay:				
Montevideo.....	Mar. 1-31.....	8	2	
Zanzibar:				
Zanzibar.....	Apr. 24-30.....	2	1	

Reports Received from Dec. 31, 1910, to June 9, 1911.

[For reports received from June 25, 1910, to Dec. 30, 1910, see PUBLIC HEALTH REPORTS for Dec. 30, 1910. In accordance with custom, the tables of epidemic diseases are terminated semiannually and new tables begun.]

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
Arabia:				
Bajil.....	Jan. 18-Feb. 12.....	49	41	
Hodeida.....	Jan. 23-Feb. 12.....	188	133	Apr. 18, present among troops.
Jebel Akhdar.....	Apr. 1-18.....			Present in remote villages.
Perim.....	Jan. 23.....			Present.
Maskat.....	Nov. 20-30.....	7	7	
Menaka.....	Jan. 19-Feb. 12.....	97	24	
Obal.....	Jan. 27-Feb. 12.....	3	3	
Zalda.....	do.....	27	15	
Austria-Hungary:				
Croatia and Slavonia.....	Aug. 3-Nov. 7.....		2	Not previously reported.
Maren.....	Dec. 4-17.....	5	2	
Hungary.....	Oct. 1-9.....	3		
Trieste.....	Nov. 27-Dec. 17.....	9	3	
	June 5.....	1	1	On s. s. Saxonia, from New York via Genoa and Naples.
Bulgaria:				
Tartar-Pazardjik.....	Jan. 10.....	2	2	
Varna.....	Nov. 29.....	2		From steamship Bulgarie, 3 fatal cases having been reported on p. 1936, Vol. XXV.
Ceylon:				
Colombo.....	Dec. 11-24.....	4	3	

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received from Dec. 31, 1910, to June 9, 1911.

CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Amoy.....	May 9.....			Present.
Newchwang.....	Aug. 1-Nov. 22.....			Occasional cases.
Shanghai.....	Aug. 1-31.....		1	Reported out of date.
Hawaii:				
Honolulu.....	Feb. 25-Apr. 25.....	39	29	Total from Feb. 25-Mar. 14: Cases, 31; deaths, 22. Apr. 12-25: Cases, 8; deaths, 7.
India:				
Bassein.....	Mar. 5-Apr. 1.....	4	4	
Bombay.....	Nov. 23-Mar. 18.....		109	Feb. 19-Apr. 22: Cases, 5.
Calcutta.....	Nov. 13-Apr. 22.....		923	
Madras.....	Nov. 27-Apr. 29.....		17	Madras Presidency, Oct. 1-Dec. 31: Cases, 8,382; deaths, 4,546. Report for Oct. 16-31 not received. Jan. 1-Apr. 30: Cases, 15,201; deaths, 8,638. Report for Mar. 1-15 not received.
Moulmine.....	Mar. 5-Apr. 1.....	20	17	
Rangoon.....	Jan. 1-Apr. 29.....	88	65	
Indo-China:				
Saigon.....	Dec. 12-Apr. 16.....	75	38	
Italy.....				Total for Italy, Dec. 27-Jan. 30: Cases, 111; deaths, 17.
Provinces—				
Aquila.....	Dec. 4-17.....	4	1	
Bari.....	Dec. 27-Jan. 30.....	5	2	
Caltanissetta.....	Dec. 4-10.....	1		
Caserta.....	Dec. 4-Jan. 14.....	15	3	
Catanzaro.....	Dec. 27-Jan. 6.....	2	2	
Lecce.....	Dec. 11-Jan. 30.....	111	13	
Palermo—				
Palermo.....	Dec. 4-10.....	16	6	
Insane asylum.....	Dec. 4-Jan. 6.....	24	6	
Rome.....	do.....	10	7	
Salerno.....	Dec. 11-Jan. 6.....	10		
Japan.....				Total for Japan, Sept. 14-Nov. 3: Cases, 2,770; deaths, 1,923, including cases and deaths appearing on p. 1937, Vol. XXV.
Aichi ken.....	Oct. 16-Nov. 20.....	3	3	
Ehime ken.....	Sept. 23-Nov. 30.....	27	19	
Formosa.....	Nov. 20-Dec. 17.....	11	6	Mainly in Kelung and Taihoku.
Fukuoka ken.....	Sept. 30-Nov. 30.....	234	165	
Hogo ken, Kobe.....	Sept. 12-Nov. 30.....	607	396	
Hiroshima ken.....	Sept. 25-Nov. 30.....	58	30	
Kagawa ken.....	Oct. 2-Nov. 30.....	293	201	
Kagoshima ken.....	Oct. 28-Nov. 30.....	4	3	
Kochi ken.....	Oct. 18-Nov. 30.....	70	42	
Kyoto fu.....	Sept. 30-Nov. 30.....	143	119	
Kumamoto ken.....	Oct. 18-Nov. 30.....	19	11	
Miye ken.....	Oct. 11-Nov. 30.....	8	5	
Nagasaki ken.....	Oct. 16-Nov. 30.....	26	11	Dec. 12-25, 5 cases, 1 death.
Nara ken.....	Oct. 3-Nov. 30.....	31	23	
Oita ken.....	Oct. 10-Nov. 30.....	2	1	
Okayama ken.....	Sept. 29-Nov. 30.....	71	49	
Osaka fu.....	Sept. 17-Nov. 30.....	951	692	
Saga ken.....	Oct. 4-Nov. 30.....	51	31	
Shiga ken.....	Nov. 20-30.....	7	6	
Shimane ken.....	Oct. 24-Nov. 30.....	7	5	
Tokushima ken.....	Oct. 3-Nov. 30.....	59	37	
Tokyo fu.....	Oct. 18-Nov. 30.....	1	1	
Wakayama ken.....	Oct. 6-Nov. 30.....	57	44	
Yamaguchi ken.....	Oct. 12-Nov. 30.....	41	29	
Java.....				Ball, Praja, Feb. 1-28: Cases, 294; deaths, 174. Lombok, Djougat: Cases, 284; deaths, 201. Celebes, Apr. 13-May 4. Present.
Batavia.....	Nov. 13-Apr. 22.....	46	25	
Samarang.....	Sept. 11-Feb. 10.....	620	534	
Surabaya.....	Oct. 23-Mar. 4.....	26	15	
Korea:				
Seoul.....	Oct. 26-Nov. 5.....	1	1	
Madeira.....				Total for Madeira, Nov. 16-Feb. 8: Cases, 1,774; deaths, 555, including report, page 1938. Vol. XXV.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received from Dec. 31, 1910, to June 9, 1911.

CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Madeira—Continued.				
Funchal	Nov. 16-Feb. 8.	635	210	
Calheta	Dec. 9-31.	1		
Camara dos Lobos	Nov. 16-Feb. 8.	513	160	
Machico	do.	278	75	
Ponto do Sol	do.	195	71	
Santa Cruz	do.	89	26	
Porto Santo Island	Nov. 10-Feb. 8.		13	
Persia:				
Ardestan	Nov. 30.			Present.
Assadabad	Oct. 5-Nov. 8.		61	
Birjend	Nov. 10.			Do.
Chalfaroud	Jan. 3.			Do.
Enzell	Nov. 8-25.	9	11	Present in vicinity and in Pire Bazar.
Hamadan	Oct. 6-Dec. 3.	42	22	
Kashan	Nov. 30.			Present.
Kasri-Churine	Oct. 13-20.		5	
Kerman	Nov. 22-Dec. 24.	106	51	
Kermanschah	Nov. 5-10.		6	
Mohammerah	Nov. 13-Dec. 5.	11	3	
Mollag-Alli	Nov. 20.	6		
Resht	Nov. 19-Dec. 3.	48	42	Present in all villages in vicinity.
Turbat-i-Hilbari	Oct. 10-Nov. 15.	66	25	
Philippine Islands:				
Manila	Nov. 6-Dec. 31.	9	6	Third quarter, 1910: Cases, 195; deaths, 141.
Provinces:				
Albay	Dec. 24-Mar. 11.	59	47	Third quarter, 1910: Cases, 5,657; deaths, 4,089.
Bulacan	Nov. 6-Feb. 4.	18	15	
Ilocos Sur	Nov. 6-Dec. 17.	58	38	
Mindoro	Nov. 6-Feb. 25.	37	27	
Rizal	Nov. 6-Feb. 18.	41	32	
Union	Nov. 6-12.	3	1	
Russia.				
Total for Russia, Nov. 20-Feb. 4: Cases, 1,230; deaths, 303. From May 8-Feb. 4: Cases, 216,796; deaths, 100,982. Apr. 28-May 3, 2 cases in the southern part.				
Baku government—				
Baku	Nov. 6-Dec. 17.	6	2	
Batum	Dec. 4-10.	2	1	
Don territory	Nov. 6-19.	6	2	
Erivan government	Nov. 6-Dec. 10.	4	4	
Ferghana territory	Nov. 6-19.	6	6	
Kharkov government	Nov. 6-12.	2		
Kazan government	Nov. 6-Jan. 7.	2	1	
Kherson government	Nov. 6-Dec. 3.	4	4	
Kief government	Nov. 6-Feb. 4.	45	18	
Kuban territory	Nov. 6-13.	4	4	
Lublin government	Nov. 20-26.	31	13	
Minsk government	Apr. 21-29.	4	1	New outbreak.
Mohilev government	Nov. 6-19.	2	1	
Orenburg government	Nov. 13-24.	15	6	
Oufa government	Nov. 6-12.	2	1	
Perm government	Nov. 20-26.	1		
Podolia government	Nov. 13-Jan. 28.	11	4	
Rjasan government	Nov. 6-12.	2		
St. Petersburg government	do.	2		
St. Petersburg	Nov. 6-Dec. 31.	32	16	
Samara government	Nov. 6-19.	6		
Saratov government	Nov. 13-26.	8	6	
Siberia, eastern	Nov. 16-19.	12	3	Vladivostok, Oct. 29-Nov. 13: Cases, 4; deaths, 17. See p. 1939, Vol. XXV.
Syr Darya territory	do.	7	4	
Taurida government—				
Sebastopol	Nov. 13-Dec. 3.	7	4	
Tambov government	Nov. 13-Dec. 10.	86	34	
Tiflis government	Nov. 6-26.	2		
Vitebsk government	Nov. 6-19.	3	2	
Veronesh government	Nov. 6-12.	2		May 8, 1 case.
Yekaterinoslav government	Nov. 6-Jan. 14.	65	34	
Siam:				
Bangkok	Nov. 6-Mar. 18.	753	743	
Straits Settlements:				
Singapore	Dec. 25-Apr. 15.	5	4	

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received from Dec. 31, 1910, to June 9, 1911.

CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Sumatra.....				Mar. 7, present in Soembawa, Batangkapas, Taloe, and Timbelon. Mar. 25, present at Solok.
Bambel.....	Dec. 29.....			Present.
Blagmoeti.....	Nov. 14.....			Do.
Keretan.....	Dec. 29.....			Do.
Pengoelodjahar.....	Nov. 14.....			Do.
Tripoli:				
Amrousse.....	Sept. 20-Dec. 8....	6	5	
Hani.....	do.....	3	2	
Tripoli.....	Nov. 15-Dec. 8....	37	37	Total Sept. 20-Dec. 8: Cases, 323; deaths, 233.
Turkey:				
Adrianople Vilayet.....	Nov. 21-Dec. 15....	60	60	94 cases and 34 deaths reported, p. 1940, Vol. XXV.
Constantinople.....	Nov. 22-Jan. 16....	841	529	Total from Sept. 13-Jan. 16: Cases, 1,318; deaths, 793.
Saloniki Vilayet.....	Dec. 11-31.....	50	25	
Turkey in Asia:				
Bagdad Vilayet.....	Nov. 20-Dec. 11....	119	115	Total Oct. 16-Jan. 16: Cases, 819; deaths, 723.
Basra.....	Nov. 6-26.....	10	9	
Medina.....	Jan. 22-Feb. 28....		667	
Mekka.....	Dec. 26-Jan. 28....	153	142	Feb. 5, present.
Samsun.....	Nov. 20-Dec. 3....	6	6	May 31, present.
Smyrna.....	Nov. 20-Apr. 27....	332	200	
Trebizond.....	Nov. 20-Dec. 18....	107	42	And vicinity.
Yembo.....	Jan. 7-Feb. 13....	37	37	
Zongouldak.....	Nov. 20-Dec. 16....	9	6	

YELLOW FEVER.

Barbados.....	May 8-June 7.....	2	1	
Brazil:				
Bahia.....	Apr. 16-Apr. 26....		14	
Manaos.....	Dec. 4-May 13.....		161	
Para.....	Nov. 27-May 20....	188	84	Mar. 12, 1 case from the British s. s. Cearense.
Pernambuco.....	Mar. 1-15.....		1	
Rio de Janeiro.....	Feb. 21-Mar. 11....	1	1	
British Gold Coast:				
Accra.....	May 29.....			Present.
Dominican Republic:				
Santiago de los Caballeros.....				Sept., 1910, present.
Ecuador:				
Guayaquil.....	Nov. 1-Apr. 30....	169	60	Including 14 cases with 3 deaths, in April, on a coaling vessel at dock.
Milagro.....	Apr. 1-30.....	3	2	
Naranjito.....	Mar. 1-Apr. 15....	4	1	
San Antonio, hacienda.....	Mar. 1-31.....	1	1	
Gambia:				
Bathurst.....	Mar. 29.....			Present.
Honduras:				
Puerto Cortez.....	Jan. 21-29.....			1 fatal case on U. S. S. Marietta.
Mexico:				
Frontera.....	June 7.....	1		From Laguna.
Salina Cruz.....	Mar. 4.....	1	1	From s. s. Opland from Guatemalan ports.
Portuguese Guinea.....	May 24.....			Present.
Venezuela:				
Caracas.....	Dec. 4-Feb. 28....	57	16	Nov. 22-Dec. 3, 5 deaths.
La Guaira.....	Dec. 1-15.....	1	1	Jan. 22-27, 1 fatal case in Canton suburb.
Macuto.....	Dec. 1-7.....	1		
Maiquetia.....	Nov. 29.....	1		

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received from Dec. 31, 1910, to June 9, 1911.

PLAGUE.

Place.	Date.	Cases.	Deaths.	Remarks.
Arabia:				
Maskat.....	Mar. 26-May 6....	68	46	
Azores:				
Terceira.....	Dec. 24.....			Present.
Brazil:				
Bahia.....	Oct. 29-Apr. 15....	65	53	
Para.....	Apr. 2-May 20....	10	6	June 7, present.
Pernambuco.....	July 1-Apr. 15....		16	
Rio de Janeiro.....	Jan. 1-31.....	12	9	Nov. 1-Dec. 31: Cases 19, deaths 5.
Sao Paulo.....	Jan. 8-Feb. 25....	3	3	
British East Africa.				
Kismayu.....	May 19.....			Present
British Egyptian Soudan:				
Suakin.....	Apr. 20-23.....	1		On s. s. Sultana.
Chile:				
Arica.....	Jan. 26-Feb. 5....	5	1	Dec. 28-Apr. 17, present.
Iquique.....	Jan. 1-28.....	5	3	Mar. 2-19: Cases 11, deaths 2.
Pisagua.....	Feb. 7-Apr. 7....	9	7	
China:				
Amoy.....	Jan. 21-Mar. 18....	11	11	Apr. 16-22: 4 deaths daily; Jan. 21-Apr. 29, present in Amoy Island and Mar. 26-Apr. 8, 15 deaths. Three of these cases were of the pneumonic form.
Kulangsu.....	Jan. 1-21.....	3	3	
Changtu.....	Jan. 14.....			Present.
Hongkong.....	Apr. 24-26.....	5		
Paoting-fu.....	Jan. 24.....			Do.
Peking.....	do.....	2		
Shantung Province.....				Total, Jan. 12-Apr. 13: Deaths 3,060.
Chefoo.....	Jan. 15-Apr. 15....		1,100	
Chinchowfu.....	Mar. 12-18.....		36	
Laichow.....	Apr. 15.....		300	
Pingtau.....	Mar. 12-18.....			Present.
Tengchowfu.....	Feb. 4.....		30	
Sioke.....	Dec. 6-Jan. 4....			Present in the interior 60 miles from Amoy.
Swatow.....	Jan. 28-May 6....			Present in vicinity.
Tientsin.....	Jan. 21-Mar. 18....		27	Jan. 17-Feb. 20, 60 cases.
Wangkochuang.....				Feb. 25, present.
Manchuria.....				Total for Manchuria, Oct. 25-Feb. 3: Cases, 1,176 Chinese, 40 Europeans; deaths, 1,164 Chinese, 37 Europeans. Total deaths to Mar. 29, 42,756.
Ah Cheng.....	To Mar. 9.....		1,451	
An Feng Line.....	Feb. 13.....		41	
Ashihe.....	Dec. 25-Jan. 13....	2		Feb. 10: Deaths, 300 daily.
Buhedu.....	Oct. 30.....	3		
Changehun.....	Jan. 1-Mar. 27....		2,695	
Chang Tu.....	To Mar. 9.....		428	
Chen An.....	Mar. 7.....		88	
Cheng Te.....	Mar. 10.....		672	
Ching Chow.....	To Mar. 2.....		36	
Ching Hsi.....	Mar. 4.....		19	
Dalny.....	Jan. 11-Feb. 8....	66	60	
Dunzenshan.....	To Dec. 25-Feb. 3.		22	
Fa Ku.....	To Mar. 3.....		217	
Feng Hua.....	To Feb. 13.....		149	
Fenting Province.....	To Mar. 29.....		7,137	
Fuchiatien.....				Nov. 8-Mar. 18: Deaths 5,149.
Fushun.....	To Mar. 9.....		66	
Hailar.....	Dec. 6-Feb. 5....		86	
Harbin.....				And vicinity, Nov. 8-Mar. 18: Deaths, 1,554 Chinese; 54 Europeans.
Hellung.....	Feb. 27.....		8	
Hellungkiang.....	Jan. 7-Mar. 29....		13,739	
Hismintun.....	To Mar. 7.....		328	
Hsi An.....	Feb. 28.....		111	
Hsi Feng.....	Mar. 4.....		31	
Huai Te.....	To Mar. 8.....		795	
Hu Lan.....	Dec. 31-Mar. 8....		1,562	
Iaomin.....	Dec. 25-Jan. 13....	1	1	
I Chow.....	To Mar. 1.....	79		
I Lan.....	Mar. 9.....		143	
Kai Yuan.....	To Mar. 7.....		211	
Kang Ping.....	Feb. 28.....		159	
Kirin.....	Jan. 7-Mar. 29....		21,880	
Kuantchentsi.....	Jan. 1-Feb. 3....	8	3	

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received from Dec. 31, 1910, to June 9, 1911.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
China—Continued.				
Manchuria—Continued.				
Kwang Ning.....	To Mar. 9.....		204	
Liao Chung.....	Feb. 27.....		33	
Liao Yang.....	Mar. 3.....		45	
Liao Yuan.....	Mar. 9.....		21	
Lan Hsi.....	Mar. 5.....		344	
Liesania vetka Handa- ohedzy.....	Dec. 25-Jan. 13....	9	9	
Lochagri.....	Dec. 27.....	4	4	
Loshagoon.....	do.....	4		
Maneduria, station.....	Dec. 7-26.....		95	
Moershan.....	Jan. 1-20.....	1	1	
Mukden.....	Jan. 1-Mar. 10....		1,656	Mar. 5-31, 236 cases.
Ning An.....	Feb. 18.....		9	
Ning Yuan.....	Mar. 4.....		67	
Pan Shan.....	Feb. 24.....		3	
Pa Yen.....	Mar. 4.....		489	
Pen Hsi.....	To Mar. 11.....		17	
Pinchow.....	Jan. 28-Mar. 7....		1,254	
Sanshahe.....	Jan. 1-20.....	3	3	
Shing King.....	To Mar. 7.....		8	
Shu Chung.....	Feb. 16.....		76	
Sui Hua.....	To Mar. 8.....		1,198	
Swang Cheng.....	To Mar. 6.....		5,517	
Tieh Ling.....	Jan. 14-Mar. 3....		73	
Tehjalainarskiy.....	Nov. 11-Dec. 3....	104	106	Cases previously reported, 14 deaths, 12.
Tehjalantum.....	Nov. 21-Jan. 14....		42	
Te Hual.....	To Feb. 25.....		225	
Tun Fa.....	Feb. 6.....		9	
Turehiha.....	Oct. 30.....	4	4	
Tzaitzaignoy.....	Jan. 1-20.....	2	2	
Ecuador:				
Babahovo.....	Dec. 16-Jan. 15....	16	4	
Duran.....	Dec. 16-Mar. 31....	11	5	
Guayaquil.....	Nov. 1-Apr. 15....	260	205	
Milagro.....	Jan. 1-Mar. 15....	10	5	
Egypt:				
Alexandria.....	Jan. 4-Apr. 28....	3		Nov. 29-Dec. 24, 5 cases, 2 deaths.
Cairo.....	Feb. 11.....	1	1	
Port Said.....	Apr. 8-13.....	2	2	
Provinces—				
Assiout.....	Jan. 1-May 4.....	148	71	Dec. 1-29, 50 cases, 24 deaths.
Assouan.....	Jan. 1-Apr. 26....	491	307	
Behera.....	Jan. 1-17.....	3		
Beni Souef.....	Feb. 7-11.....	2		
Favoum.....	Mar. 15-18.....	11	9	
Galioubeeh.....	Feb. 28-Apr. 10....	2	1	Nov. 22-Dec. 2, 1 case, 1 death.
Garbieh.....	Mar. 3-14.....	5	3	
Girgeh.....	Apr. 2-15.....	16	13	
Gizeh.....	Jan. 1-Feb. 1.....	9	5	
Kena.....	Jan. 14-May 4.....	451	343	
Menouf.....	Jan. 1-May 4.....	57	34	Dec. 2-22, 26 cases, 14 deaths.
Minieh.....	Feb. 22-May 4.....	76	27	
German East Africa:				
Muanza.....	Nov. 16-Mar. 22....	30	6	
Hawaii:				
Honokaa.....	Jan. 31-Apr. 19....	3	3	
India:				
Bombay.....	Nov. 23-Apr. 29....		2,705	Feb. 19-Apr. 29, 2,694 cases.
Calcutta.....	Nov. 13-Apr. 22....		789	
Kurrachee.....	Nov. 19-Apr. 29....	2,098	1,963	
Madras.....	Dec. 11-17.....		1	
Rangoon.....	Jan. 1-Apr. 29....	342	331	Dec. 11-31, 10 deaths.
Bombay Presidency and Sind.....	Oct. 9-Apr. 15....	46,925	32,611	
Madras Presidency.....	do.....	8,195	6,761	
Bengal.....	do.....	65,619	53,671	
United Provinces.....	do.....	266,256	237,292	
Punjab.....	do.....	93,071	77,011	
Burma.....	do.....	3,975	3,760	
Eastern Bengal and Assam.....	Jan. 29-Apr. 15....	10	10	
Central Provinces.....	Oct. 29-Apr. 15....	30,773	23,688	
Coorg.....	do.....	24	12	
Mysore State.....	do.....	9,254	6,573	
Hyderabad State.....	do.....	6,875	5,783	
Central India.....	do.....	8,864	7,407	

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received from Dec. 31, 1910, to June 9, 1911.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
India—Continued.				
Rajputana and Ajmere	Oct. 29-Apr. 15...	21,468	17,393	
Merwara.				
Kashmir.....	Nov. 6-Apr. 15....	530	310	
North West Province.....	Dec. 10-Apr. 15....	185	129	
Grand total.....		562,024	472,410	
Indo-China:				
Saigon.....	Nov. 14-Apr. 16....	53	12	
Japan:				
Formosa.....	Jan. 22-Apr. 15....	60	54	In the southern part.
Java:				
Batavia.....	Apr. 7.....			Present. Feb. 18—Present among pilgrims on a steamer from Jiddah in quarantine 10 miles distant.
Paserocean Residency, Malang.				
Mar. 1-Apr. 22....		175	105	
Mauritius:				
Dec. 30-Mar. 30....		116	53	Sept. 30-Dec. 29: Cases, 511; deaths, 290.
New Caledonia:				
Noumea.....	Sept. 17.....			Present.
New Zealand:				
Auckland.....	Mar. 21.....	3	1	From Onehunga.
Persia:				
Buchir.....	Apr. 23-29.....	6	5	
Peru:				
Departments—				
Ancachs.....	Feb. 1-Mar. 18....	15	2	Mar. 4 present at Casma.
Arequipa.....	Nov. 1-Feb. 28....	27	8	
Islay.....	Mar. 1-Apr. 18....	9	6	
Mollendo.....				Mar. 10-Apr. 18: Cases, 13; deaths, 6.
Cajamarca.....	Feb. 1-28.....	7	5	
Callao.....	Nov. 1-Apr. 1....	5	3	Callao. Mar. 29-Apr. 4, 3 cases.
Chiclayo.....	Mar. 1-25.....	15	6	
Lambayeque.....	Nov. 1-Mar. 18....	38	19	
Libertad.....	Nov. 1-Feb. 28....	179	85	Dec. 10-Mar. 11, present in Chicama Valley. Salaverry, May 8, 2 deaths. Mar. 1-Apr. 1, 35 cases, 10 deaths, at Truxillo. Mar. 1, present in Moche and Viru. Trujillo, May 8, 16 cases in lazaretto.
Lima.....	Nov. 1-Apr. 1....	40	21	Lima—Feb. 19-Mar. 11: Cases, 9; deaths, 3. Mar. 11: Catacaos, epidemic.
Huaro-chiri.....	Mar. 1-18.....	1		
Pacasmayo.....	Mar. 19-Apr. 1....	3	3	
Piura.....	Nov. 1-Mar. 18....	76	41	
Portuguese East Africa:				
Nahoria.....	May 26.....			Present.
Russia:				
Astrakhan Government—				
Abil-Isken.....	Nov. 22-29.....	4	4	
Kirghiz Steppe.....	Dec. 17-Feb. 7....	106	88	
Kolden.....	Dec. 6-13.....	8	3	
Koybal.....	Dec. 10-13.....	5	1	
Kulken Island.....	Oct. 13-Nov. 4....	5	5	
Nauraal-Tehaygal.....	Nov. 23-29.....	5	5	
Neuren.....	Nov. 17-21.....	1	1	
Trans-Caucasia				
Petrovsk.....	Nov. 23.....	1	1	
Sanitza-Olivianna.....	Nov. 22.....	1	1	
Baku.....	Dec. 17.....	1	1	
Batum.....	do.....	1	1	
Odesa.....	Jan. 1-Mar. 5....	3	2	Dec. 9, 1 death.
Siam:				
Bangkok.....	Nov. 27-Feb. 25....	17	15	
Straits Settlements:				
Singapore.....	Nov. 13-Mar. 25....	3	3	
Trinidad.....	Feb. 8-May 10....	7	2	
Turkey in Asia:				
Jiddah.....	Dec. 16-Apr. 24....	37	32	
Venezuela:				
Caracas.....	Apr. 10-28.....	5		Nov. 9, present.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received from Dec. 31, 1910, to June 9, 1911.

SMALLPOX.

Place.	Date.	Cases.	Deaths.	Remarks.
Abyssinia:				
Ausi Ababa.....	Nov. 20-Feb. 11.....			Present.
Algeria:				
Algiers.....	Mar. 1-31.....		1	
Arabia:				
Aden.....	Jan. 9-Apr. 10.....	126	15	And vicinity.
Berbera.....	Dec. 9-Jan. 9.....			Epidemic.
Bulhar.....	Jan. 25.....			Present.
Maskat.....	Jan. 1-21.....	3		1 case from a British naval vessel.
Zella.....	Jan. 25.....			Present.
Argentina:				
Buenos Aires.....	Oct. 1-Feb. 28.....		26	
Rosario.....	Oct. 1-Mar. 31.....		37	
Australia:				
Adelaide.....				Sept., 1910, 1 case on s. s. Kazembe from Singapore.
Austria-Hungary:				
Bohemia.....	Apr. 9-22.....	3		
Galicia.....	Mar. 12-May 6.....	9		
Krain.....	Mar. 5-May 6.....	10		
Trieste.....	Apr. 16-May 6.....	3	1	
Barbados:				
Bridgetown.....	Jan. 14.....	1		From steamship Cara from Rio de Janeiro.
Belgium:				
Antwerp.....	Mar. 26-Apr. 29.....	3		
Brazil:				
Bahia.....	Oct. 29-Jan. 6.....	62	31	
Para.....	Nov. 27-May 6.....	74	17	
Pernambuco.....	July 1-Mar. 15.....		1,486	
Rio de Janeiro.....	Jan. 1-Mar. 11.....	4	2	Nov. 14-Dec. 31, 6 cases.
Sao Paulo.....	Jan. 8-Mar. 11.....	2	1	
Canada:				
British Columbia—				
Fernie.....	Feb. 19-Apr. 1.....	10		
Vancouver.....	Jan. 1-May 27.....	28		
Victoria.....	Dec. 11-Feb. 28.....	59		
Grosse Isle Quarantine Station.	May 3.....	2		From s. s. Dominion from Liverpool.
Manitoba—				
Winnipeg.....	Apr. 2-29.....	3		
New Brunswick—				
Campbelltown.....	Apr. 4-10.....	1		
Moncton.....	Jan. 29-Feb. 11.....	15		
Newcastle.....	Dec. 18-May 27.....	13		Jan. 14-June 3, in vicinity.
St. Marys.....	Apr. 9-15.....	1		
Newfoundland—				
St. Johns.....	Mar. 12-18.....	2		
Nova Scotia—				
Halifax.....	Jan. 1-May 6.....	13		
Louisburg.....	Dec. 25-Feb. 4.....	9		
Sydney.....	Jan. 22-Apr. 22.....	9		
Ontario—				
Cornwall.....	Jan. 1-May 23.....	4		
Fort William.....	Apr. 3-May 29.....	7		
Ottawa.....	Dec. 18-May 27.....	62		
Sarnia.....	Mar. 19-Apr. 8.....	2		
Prince Edwards Island.....	Mar. 1-Apr. 29.....	150		In a French settlement 70 miles from Summerside.
Charlottetown.....	Mar. 29-May 16.....	24	1	
Quebec—				
Paspieblac.....	May 21-27.....	1		
Quebec.....	Feb. 12-May 27.....	12		Total for Province of Quebec, Apr. 28: Cases, 300.
Ceylon:				
Colombo.....	Nov. 13-Apr. 22.....	41	9	
Chile:				
Coquimbo Province.....	Dec. 13-30.....			Present in two localities.
Iquique.....	Nov. 13-19.....		1	
Punta Arenas.....	Nov. 1-30.....	1		
Tulcahuano.....	Nov. 13-Dec. 17.....	23		
Valparaiso.....	Nov. 20-Apr. 15.....	634		Deaths not generally reported. Jan. 8-14, 2 deaths; Apr. 13, present.
China:				
Amoy.....	Mar. 8-14.....		8	Mar. 25-Apr. 8, still present in vicinity.
Canton.....	Dec. 11-17.....	26	3	
Chefoo.....	do.....			Present among natives.
Chungking.....	Nov. 13-Apr. 1.....			Present.
Hankow.....	Mar. 26-Apr. 1.....			Do.
Hongkong.....	Dec. 4-Apr. 22.....	111	66	

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received from Dec. 31, 1910, to June 9, 1911.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
China—Continued.				
Manchuria—				
Dalny.....	Nov. 27-Feb. 11....	2	1	Present. Deaths among natives. Present 25 miles inland; Jan. 21-May 6, present in vicinity.
Nanking.....	Nov. 20-Apr. 29....			
Shanghai.....	Nov. 21-Apr. 30....	61	187	
Swatow.....	Jan. 1-7.....			
Tsingtau.....	Jan. 8-Apr. 22....	27	1	
Colombia:				
Cartagena.....	Jan. 15-May 21....			Present.
Ecuador:				
Guayaquil.....	Apr. 22.....			One case from s. s. Manavi from Manta.
Egypt:				
Alexandria.....	Jan. 1-Mar. 31....	27	21	Nov. 1-Dec. 31, 1 case, 2 deaths.
Cairo.....	Dec. 3-Apr. 29....	25	8	
Port Said.....	Dec. 17-Apr. 29....	34	21	
France:				
Paris.....	Dec. 3-Apr. 29....	78		
Gambia.....	Apr. 8.....			Present.
Germany.....				Total for Germany, Dec. 4-May 20, cases 142.
Magdeburg.....	Mar. 19-Apr. 8....	3		
Gibraltar.....	Jan. 16-Apr. 23....	6		
Great Britain:				
Dublin.....	Jan. 15-21.....	1		
Dundee.....	May 7-20.....	1	1	
Glasgow.....	Apr. 30-May 5....	2		
Leith.....	Dec. 11-17.....	2		From a steamship from Oporto.
Liverpool.....	Jan. 29-May 13....	9		
London.....	Feb. 19-May 13....	253	8	
Nottingham.....	Mar. 12-18.....	1		
Guatemala:				
Estora.....	May 21.....			Present.
Quirigua.....	do.....			Do.
Hawaii:				
Honolulu.....	Jan. 3-May 4....	5		Jan. 3, 3 cases on s. s. Kiho Maru from Manzanillo. Feb. 18, 1 case on s. s. Chiyo Maru from Yokohama.
Olaa.....	May 4.....	1		
Hilo.....				In vicinity Mar. 14-30, 9 cases, including 3 reported Mar. 26 at Waiakea.
Kona.....	Mar. 22.....	1		
Maul—				
Puene.....	Jan. 24.....	39		
Waikapu.....	Jan. 31.....	1		
India:				
Bombay.....	Dec. 6-Apr. 29....		260	Feb. 19-Apr. 29, 422 cases.
Calcutta.....	Nov. 6-Apr. 22....		41	
Madras.....	Nov. 20-Apr. 29....	799	343	Nov. 20-Dec. 31, 6 deaths.
Rangoon.....	Jan. 1-Apr. 29....	1,281	446	
Indo-China:				
Saigon.....	Nov. 14-Apr. 16....	456	83	
Italy:				
Genoa.....	Feb. 1-May 15....	13		
Naples.....	Dec. 4-May 15....	555	209	
Palermo.....	Jan. 8-May 15....	161	59	
Turin.....	Jan. 8-Apr. 8....	4		
Japan:				
Formosa.....	Mar. 19-25.....	1		Dec. 26-Jan. 1, 2 cases from s. s. Shimosa from New York via ports.
Kobe.....	Dec. 26-Apr. 8....	6	1	
Nagahama.....	Mar. 23.....	1		From s. s. Luceric from Hong-kong via ports.
Java:				
Batavia.....	Dec. 26-Mar. 18....	12		
Malta:				
Valetta.....	Dec. 4-Jan. 28....	4		
Mexico:				
Aguascalientes.....	Dec. 25-Apr. 23....		62	
Chihuahua.....	Jan. 30-May 7....	5	3	
Ciudad Porfirio Diaz.....	May 14-20.....		1	
Ensenada.....	Mar. 12-May 20....	35	5	
Guadalajara.....	Jan. 29-Apr. 1....	2	2	
Juarez.....	May 14.....	20		

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received from Dec. 31, 1910, to June 9, 1911.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Mexico—Continued.				
Mexico.....	Dec. 11-Apr. 22.....		116	Reports from Jan. 8-28 not received.
Monterey.....	Dec. 19-Apr. 16.....		2	
Nogales.....	May 21-27.....	3		
Salina Cruz.....	May 14-20.....	1		
San Juan Bautista.....	May 26.....	40	10	
San Luis Potosi.....	Nov. 13-Apr. 29.....	174	35	Jan. 26, present in the interior of the State.
Tampico.....	Dec. 2-May 20.....	128	34	Present in Dona Cecilia, La Barra, and Tancol.
Vera Cruz.....	Mar. 15-18.....	1	1	From a sailing vessel.
Morocco:				
Tangier.....	Mar. 19-25.....			Epidemic.
Netherlands:				
Rotterdam.....	Dec. 11-Jan. 28.....	4		
New Zealand:				
Lytelton.....	Dec. 30.....	1		On s. a. Knight of the Garter from Karotzu, Japan.
Peru:				
Salaverry.....	Jan. 25-Mar. 21.....	17	2	Jan. 10-Feb. 7, present.
Truxillo.....	Dec. 19.....		2	Dec. 19-Jan. 7, present in vicinity.
Philippine Islands.....				Third quarter, 1910: Cases, 11; deaths, 0.
Portugal:				
Lisbon.....	Dec. 3-May 13.....	339		Oct. 30-Dec. 31, deaths, 48. Year 1910, 286. Jan. 1-Apr. 22, deaths 49.
Russia:				
Libau.....	Dec. 5-Apr. 30.....	8	4	
Moscow.....	Nov. 15-May 6.....	329	110	
Odessa.....	Nov. 20-May 6.....	42	8	
Riga.....	Dec. 11-May 6.....	168		Oct. 1-Dec. 31, 82 deaths. Jan. 1-Feb. 28, deaths 38.
St. Petersburg.....	Nov. 13-May 6.....	646	178	
Warsaw.....	Oct. 9-Mar. 18.....		49	
Siberia:				
Vladivostok.....	Nov. 22-Mar. 21.....	35	5	
Siam:				
Bangkok.....	Dec. 21-Mar. 16.....	13	9	
South Africa:				
Cape Town.....	Mar. 5-11.....	1		
Johannesburg.....	Mar. 17-Apr. 29.....	18	6	
Spain:				
Barcelona.....	Dec. 5-Jan. 8.....		2	Mar. 12, present.
Madrid.....	Nov. 1-Apr. 30.....		34	
Seville.....	Jan. 1-Apr. 30.....		13	
Valladolid.....	Mar. 1-11.....			Epidemic.
Valencia.....	Nov. 27-May 13.....	100	3	
Straits Settlements:				
Penang.....	Jan. 1-Apr. 8.....	81	28	Nov. 6-Dec. 31: Cases, 60; deaths, 68.
Singapore.....	Nov. 13-Apr. 15.....	114	28	
Switzerland.....	Apr. 2-29.....		2	
Cantons—				
Aargau.....	Jan. 29-Mar. 18.....	58		
Baselstadt.....	Feb. 19-25.....	1		
Bern.....	Dec. 12-Apr. 15.....	21		
Turkey:				
Constantinople.....	May 8-14.....		1	Dec. 19-25, deaths, 1.
Turkey in Asia:				
Adana.....	Mar. 14.....		1	
Beirut.....	Dec. 4-Apr. 22.....	61	6	
Kharput.....	Apr. 2-29.....	20		
Smyrna.....	Dec. 18-May 6.....	3		
Uruguay:				
Montevideo.....	Oct. 1-Feb. 28.....	59	19	
Zanzibar:				
Zanzibar.....	Oct. 31-Apr. 23.....	79	53	

MORTALITY—Continued.

Weekly mortality table, foreign and insular cities—Continued.

Cities.	Week ended—	Estimated population.	Total deaths from all causes.	Deaths from—									
				Tuberculosis.	Plague.	Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Typhoid fever.	Scarlet fever.	Diphtheria.	Measles.
Manaos.....	May 13	52,000	45	2			2						
Manchester.....	May 6	543,969	210	25								2	17
Do.....	May 13		246	35							1	3	20
Do.....	May 20		230	37								1	22
Mannheim.....	Apr. 29	195,111	45	9							1		2
Do.....	May 6		38	5									3
Do.....	May 13		33	5									1
Maskat.....	Apr. 29	10,000			10								
Do.....	May 6				16								
Do.....	May 13				5								
Mexico.....	Apr. 29	500,000	452	21				23	34		1	2	2
Do.....	May 6		423	24				15	25		1		4
Monterey.....	May 21	100,000	65	9							8		
Do.....	May 28		59	6						4	2		
Montreal.....	May 27	450,000	181	24						4	1	1	2
Do.....	June 3		139	18						1	1	1	
Moscow.....	May 13	1,500,000	846	91				12	9	5	14	13	18
Munich.....	May 6	517,000	172	37							1		
Nagasaki.....	May 7	178,074	40	6									1
Nagaya.....	Apr. 28	402,101	129							2		2	
Nantes.....	May 14	161,908	58	24						1			
Do.....	May 21		45	14									
Naples.....	May 14	593,729		3				4					
Newcastle-on-Tyne.....	May 13	290,360	80	3							1		3
Do.....	May 20		86	9									4
Nottingham.....	May 13	260,000	77							1			1
Odessa.....	Apr. 29	546,000	179	23				2	1	3	1	1	
Palermo.....	May 20	340,000	134	7				6		3	6		
Do.....	May 27		139	10				7		3	4	2	
Para.....	May 20	185,000	86	6	3		1						1
Do.....	May 27		87	8	1			1		1			27
Paris.....	May 13	2,846,986	973	226						2	6	7	27
Penang.....	Apr. 22	248,207	68	14						2			
Prague.....	May 6	235,556	90	19							3		2
Do.....	May 13		90	22							2	1	1
Do.....	May 20		85	17								3	1
Port Said.....	May 6	52,811	30					6					2
Do.....	May 13		34					7					
Rangoon.....	Apr. 22	252,155	293	9	43	26		47					
Do.....	Apr. 29		286	15	56	18		37					
Salina Cruz.....	May 20	6,138	6							1			
San Luis Potosi.....	do	82,694	97	1				5	1				1
Santa Cruz de Teneriffe.....	May 13	46,000	15	3					1				
Do.....	May 20		5							1			
Santos.....	Mar. 11	85,000	23							2			
Do.....	Mar. 18		37							1			4
Do.....	Mar. 25		24									1	1
Do.....	Apr. 1		25							1			1
St. Petersburg.....	Apr. 22	1,907,708	791	117				5		6	13	6	11
Do.....	Apr. 29		890	117				6		7	13	7	32
Do.....	May 6		862	117				5	2	10	13	3	25
Shanghai.....	Apr. 23	492,000	127	15				2				2	
Do.....	Apr. 30		109	14				4			1	1	

MORTALITY—FOREIGN AND INSULAR—COUNTRIES AND CITIES
(untabulated).

ARGENTINA—Buenos Aires.—Month of March, 1911. Population, 1,326,088. Total number of deaths from all causes 1,772, including diphtheria 11, measles 2, scarlet fever 5, smallpox 9, tuberculosis 187, typhoid fever 52.

Rosario.—Month of March, 1911. Population, 201,268. Total number of deaths from all causes 423, including diphtheria 7, smallpox 15, tuberculosis 33, typhoid fever 13.

CANADA—Dawson.—Month of March, 1911. Total number of deaths from all causes 9, including tuberculosis 1. Month of April, 1911. Total number of deaths 7, including tuberculosis 3, typhoid fever 1.

Sherbrooke.—Month of May, 1911. Population, 16,000. Total number of deaths from all causes 32, including diphtheria 1, tuberculosis 4.

FRANCE—St. Etienne.—Two weeks ended May 15, 1911. Population, 150,000. Total number of deaths from all causes 127, including diphtheria 1, measles 1, scarlet fever 1, tuberculosis 17.

GREAT BRITAIN.—Week ended May 20, 1911.

England and Wales.—The deaths registered in 77 great towns correspond to an annual rate of 12.4 per 1,000 of the population, which is estimated at 17,160,256.

Ireland.—The deaths registered in 21 principal town districts correspond to an annual rate of 16.1 per 1,000 of the population, which is estimated at 1,163,596. The lowest rate was recorded at Drogheda, viz, 4.1, and the highest at Armagh, viz, 34.4 per 1,000.

Scotland.—The deaths registered in 8 principal towns correspond to an annual rate of 15.8 per 1,000 of the population, which is estimated at 1,710,299. The lowest rate was recorded at Leith, viz, 5.2, and the highest at Paisley, viz, 19.1 per 1,000. The total number of deaths from all causes was 517, including diphtheria 1, measles 7, scarlet fever 2, typhoid fever 1.

NEW ZEALAND.—Month of January, 1911.

Auckland.—Population, 101,446. Total number of deaths 76, including tuberculosis 1, typhoid fever 2.

Christchurch.—Population, 80,523. Total number of deaths 71, including tuberculosis 3.

Dunedin.—Population, 64,402. Total number of deaths 67, including tuberculosis 5.

Wellington.—Population, 78,243. Total number of deaths 52, including tuberculosis 3.

RUSSIA—Libau.—Four weeks ended April 13, 1911. Population, 60,000. Total number of deaths from all causes not reported. The deaths include diphtheria 2, measles 6, scarlet fever 1.

SOUTH AFRICA—*Johannesburg*.—Two weeks ended April 29, 1911. Population, 220,304. Total number of deaths from all causes 181, including tuberculosis 16, typhoid fever 6.

URUGUAY—*Montevideo*.—Month of February, 1911. Population, 321,224. Total number of deaths from all causes 439, including diphtheria 1, measles 2, smallpox 3, tuberculosis 70, typhoid fever 10.

Month of March, 1911. Total number of deaths 454, including measles 2, tuberculosis 69, typhoid fever 5.

By authority of the Secretary of the Treasury:

WALTER WYMAN,

Surgeon General,

United States Public Health and Marine-Hospital Service.